



Economic Assumptions

For the United States and Virginia

Calendar Years 2009, 2010, and 2011 ♦ Program Years 2009 and 2010



Virginia Employment Commission ♦ Economic Information Services Division

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Introduction

Again this year, projections appearing in the Virginia Employment Commission's (VEC's) *Economic Assumptions* are based on long-term forecasts produced for the Commonwealth of Virginia by Global Insight (formerly DRI-WEFA) of Lexington, Massachusetts, and Eddystone, Pennsylvania. The VEC shares the Global Insight contract with the Virginia Department of Taxation, the principal instate subscriber.

By using the Virginia Global Insight model, we are able to offer detailed Virginia labor force and employment forecasts on an industry-by-industry basis in our summary tables. To further assist analysis, detailed industry forecasts have been summarized by Calendar Year (CY) and Program Year (PY) by the Economic/Operations Research unit of the Economic Information Services Division of the VEC. Also, we can now offer a quarter-by-quarter breakout of the by-industry data for the forecast periods.

In order to make the *Economic Assumptions* available to program planners at the beginning of CY 2009, labor force and employment estimates for 2008 were made using preliminary data before final figures and the normal end-of-the-year benchmark revisions become available in spring 2009. The use of preliminary data may cause slight level differences from the benchmarks when they become available, but these differences should not alter projected trends. Also, in order to have the data available to program planners in time for the program planning cycle, the Global Insight baseline forecast for Virginia labor force and employment projections was used as our basis. This may make the projections in *Economic Assumptions* differ in some details from the final amended official Virginia forecast from the Department of Taxation. It is suggested that as the year wears on that users also consult our quarterly *Virginia Economic Indicators* publication for summary forecast updates.

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U.S. Forecast Highlights

Last year, the forecast was the U.S. economy would have a period of little growth in the first half of CY 2008, but because of fixes of the financial problems by the Federal Reserve in the form of lower interest rates, recession would narrowly be avoided. By the time of the national presidential election in November 2008, the economy was expected to be on the upswing. The forecast last year stated “the big problem is any kind of further shock to the economy could probably tip the balance toward recession.” Unfortunately, the economy suffered a number of shocks in CY 2008.

☼ When the U.S. Department of Commerce revised the Gross Domestic Product (GDP) numbers for CY 2007 and several previous years, as it usually does in the summer, it was found that economic performance in this decade was not as good as earlier believed. (GDP is the sum of the output of all the goods and services produced by labor and property in the U.S. economy and is the key measure of economic gain or loss.) The revisions showed GDP grew at only a 2.0 percent rate in CY 2007, and CY 2004, at 3.6 percent growth, was the only year so far in the decade to have above 3.0 percent trendline growth.

☼ World oil prices started rising from less than \$100 per barrel, skyrocketing to \$147 per barrel by July. The sharp spike was much higher than the supply/demand situation would appear to warrant, but the rise was driven by speculation and high anticipated demand. Oil prices nosedived once the China Olympics and the summer driving season were over, but not before world and especially the U.S. demand for vehicles had been significantly altered. In the U.S., the sales of light vehicles plummeted from 16.1 million units in CY 2007 to only 10.1 million units annualized by November 2008, and the Big Three domestic auto producers—General Motors, Ford, and Chrysler—were on the verge of collapse.

☼ U.S. financial markets imploded in August and September 2008 in spite of efforts all year by the Federal Reserve to remedy things.

» The Federal Reserve had:

- Forced the sale of Bear Stearns investment banking house.
- Opened its discount lending to investment banks.

- Dropped the Fed Funds rate from 5.25 percent in September 2007 to 2.00 percent by spring 2008.

- Allowed investment banker Lehman Brothers to fail.

- Forced the sale of investment banker Merrill Lynch to Bank of America.

- Forced the takeover of Washington Mutual Savings by J.P. Morgan Chase.

- Forced Wachovia to be sold to Wells Fargo.

» In the meantime, the U.S. Treasury:

- Took over Fannie Mae and Freddie Mac, the quasi-government mortgage financing companies.

- Made loans to AIG Insurance, deeming it “too big to fail.”

☼ By late summer 2008, the Federal Reserve, realizing the financial problems were becoming too big for it to handle by itself, sought assistance from the U.S. Treasury. Treasury Secretary, Henry Paulson, and Federal Reserve Chairman, Ben Bernanke, went before the U.S. Congress to ask for legislation for the federal government to buy as much as \$700 billion in distressed mortgage-backed assets to prevent the financial system from failing.

☼ The emergency of the situation caused Congress to act—the Troubled Assets Relief Program (TARP) was passed in October 2008. TARP enacted unprecedented legislation for the government to buy as much as \$700 billion in distressed mortgage-backed assets to prevent the financial system from collapsing.

» The legislation allows the U.S. government to purchase discounted and distressed assets from the banking system. This, hopefully, will create liquidity and put a bottom under the housing market while reducing investor uncertainty. It will help restore confidence in the financial system and enable financial institutions to raise capital and expand credit to promote growth.



- While the financial markets were in turmoil, a national presidential election was going on. The Democratic candidate, Barack Obama, was elected the 44th U.S. President on November 4, 2008; and the Democratic party gained a fairly big majority in both houses of Congress.
- The natural difficulties of transition between the outgoing Bush administration and the new in-coming Obama administration, although the two have tried to work together, has undoubtedly complicated and made more difficult the speedy implementation of TARP to rescue the economy.
- The banks have remained very reluctant to lend to promote growth, and some of the monies that were initially supposed to buy up the bad mortgages seemed to now be channeled to loans and assistance to troubled banks and other troubled financial businesses. This process is still evolving—although one-half of the \$700 billion of the TARP monies has been spent as we go to press.
- As the economy has continued to worsen, the Federal Reserve in an effort to assist, on December 16, 2008,

decided to establish a target range for the Fed Funds rate of 0.0 to 0.25 percent, an unprecedented low. The Federal Reserve has lowered the Fed Funds rate nine times since September 2007.

- Also, in the presidential transition period, General Motors, GMAC financing, and Chrysler also secured TARP loans to tide them over until March 2009 when they will likely attempt to secure more permanent help from the new Obama administration.

CY 2008 in Review

- The signs of the economic slowdown appeared in Fourth Quarter 2007. With revisions, GDP growth in Fourth Quarter 2007 was negative by -0.2 percent. First Quarter 2008 growth was positive by 0.9 percent. Oil and gasoline prices rose.
- Second Quarter 2008 GDP growth was positive by an annual rate of 2.8 percent. The increase reflected strong positive contributions from U.S. exports, consumers' spending of the tax rebate checks, commercial construction, and government spending. The acceleration in GDP growth in the second quarter was aided by reduced imports as consumers cut back on energy purchases (foreign oil).
- Third quarter GDP turned negative by -0.5 percent as the spring's tax rebate checks had passed through the system, oil hit \$147 per barrel on world markets in July, and regular gasoline was up over \$4.10 per gallon. About the time the summer driving season peaked and the World Olympics took place, oil and gasoline prices started to fall. U.S. exports, which were the main thing holding up GDP growth, started to soften as other world economies also turned down. In spite of efforts all year by the Federal Reserve to contain the mortgage market problems, the financial markets really imploded in August and September.
- Fourth quarter saw the financial problems worsen and Congress pass the emergency TARP legislation, which was at first supposed to buy up the bad mortgages, but now seems more aimed at shoring up the financial institutions and restoring liquidity, which had all but stopped, to commerce. The Federal Reserve continued to drop interest rates, on December 16, lowering the Fed Funds rate to an unprecedented 0.0 to 0.25 percent range. The

presidential election took place on November 4, and Democrat, Barack Obama, was elected by a substantial margin. The presidential transition period was made more difficult, not by a lack of cooperation between the incumbent and president-elect, but by implementation of TARP and the worsening economic situation. Layoffs mounted at year's end; and winter storms, hampering shoppers, made the holiday sales season the worst since 1969. On December 1, the National Bureau of Economic Research (NBER), the Princeton, New Jersey, group that designates recessions in the U.S., did not wait for the usual two quarters of negative growth and declared the U.S. had been in recession since December 2007 because of the unusual strains on the economy. A bright spot—world oil prices fell below \$40 per barrel in December and regular gasoline was \$1.30 to \$1.60 per gallon.

Final Fourth Quarter 2008 GDP numbers will not be available until March 2009, but it now looks like the economy is in free-fall, with GDP being down as much as -5.0 percent and unemployment rising sharply to 7.1 percent (not seasonally adjusted) by December.

Basic economic number averages for CY 2008 should turn out as follows:

- ⌘ Economic growth in CY 2008 should average 1.2 percent GDP gain because of growth in the first quarter (0.9 percent) and, especially, the second quarter (2.8 percent due to the tax rebates). The third (-0.5 percent) and fourth quarters see declines that should pull the annual average down. GDP annual average growth is expected to be positive, although the NBER has now officially said the U.S. recession started in December 2007.
- ⌘ Consumer spending growth should average only 0.3 percent as consumers burdened by sky-high fuel prices the first half of the year, rising unemployment, and fear over loss of equity in the housing and financial markets bought little other than essentials. The financial market crisis killed many big-ticket purchases as better than half the customers could not get financing. New light vehicle sales were down from an average 16.1 million units in CY 2007 to a projected 13.1 million units in CY 2008. New housing starts fell from 1.34 million in CY 2007 to a projected 0.91 million in CY 2008, and existing home sales went from 5.67 million in CY 2007 to a projected

4.86 million in CY 2008. Business spending also grew less—from 4.9 percent in CY 2007 to a projected 1.9 percent in CY 2008. Federal government spending growth was a projected 5.7 percent, up from 1.6 percent growth in CY 2007. State and local government spending growth fell from 2.3 percent in CY 2007 to a projected 1.2 percent in CY 2008 as tax revenues began to dry up with the weakening economy.

- ⌘ The Federal Reserve reduced the Fed Funds rate, going from 4.25 percent in December 2007 to a 0.0 to 0.25 percent range in December 2008 in order to induce more loan liquidity into markets. The Fed Funds rate averaged 1.93 percent in CY 2008, compared to 5.02 percent in CY 2007. The Federal Reserve, tried to shore up financial markets, but realizing the financial problems were too big to handle alone, the Federal Reserve teamed up with the U.S. Treasury to beg Congress to enact the TARP legislation.
- ⌘ Sharp spikes in energy and commodity prices in first, second, and into third quarter pushed up average consumer prices (or inflation) in CY 2008 to 3.8 percent from a 2.9 percent average in CY 2007. Consumer prices were dropping by an estimated -9.3 percent in Fourth Quarter 2008, largely because of the drastic fall in energy prices, but the first three quarters kept average inflation for CY 2008 high.
- ⌘ Nonagricultural employment in the nation turned negative in Second Quarter 2008 and should show an average job loss of -0.2 percent for CY 2008. This compared with an average job gain of 1.1 percent in CY 2007. Industries with the biggest job losses were construction, manufacturing, finance, and trade and transportation.
- ⌘ The U.S. unemployment rate moved up from a 4.6 percent average in CY 2007 to an expected 5.8 percent average in CY 2008.

The Future

The NBER on December 1, 2008, officially declared the U.S. economy to be in recession, starting in December 2007. The NBER did not wait for the usual two consecutive quarters of negative growth to be confirmed, saying the U.S. economy has been in a weakened state for a year now. The average post-World War II recession period lasted for just over 10 months. With the current recession already one-year

U.S. Forecast Highlights

old, according to the NBER, this could become the longest downturn since the Great Depression of the 1930s, because at least two to three more quarters, going into CY 2009, are expected to see negative growth. With the changed composition of the aging U.S. labor force (a labor force that has had to bring in several million foreign workers in recent years just to fill the jobs that needed to be filled), it does not appear that unemployment will top the 10.8 percent level in CY 1982, although the national unemployment rate is likely to average over 9 percent by CY 2010. It may be CY 2012 before national unemployment drops below 8 percent. For recovery to start, home prices have got to bottom out and liquidity needs to be restored to the banking system.

Outlook for CY 2009

- ❁ CY 2009 should be the worst period of the recession with at least two to three quarters of negative GDP growth. GDP growth should average -2.5 percent for the year.
- ❁ Consumer spending growth should be negative for at least the first two quarters and average -0.9 percent for the year. Light vehicle sales should further slump to average 10.3 million units. Housing should hit bottom at 0.60 million average new starts and 4.44 million average existing home sales. Declining consumer demand and tight credit will reduce business spending an average -15.1 percent. Federal government spending will be up an average 3.2 percent with monies for the TARP bailout of the banks and motor companies, the wars in Iraq and Afghanistan, extended unemployment benefits, and public works projects to help states and localities. The federal deficit will skyrocket to \$1,349 billion. Reduced revenues will cause only a 0.4 percent gain in state and local government spending.
- ❁ Oil has been below \$40 per barrel and should average \$34 per barrel in CY 2009—bad news for producers, but good news for consumers. There will be a period of deflation with consumer prices averaging -2.2 percent lower. The Fed Funds rate will average only 0.13 percent.
- ❁ Job losses will further reduce U.S. nonfarm payroll employment by an average -2.6 percent. Unemployment will rise to average 8.5 percent as more jobs are lost in construction, manufacturing, retailing, finance, and state and local governments.



Outlook for CY 2010

- ❁ GDP will be starting to recover and turning back positive to 2.2 percent average growth.
- ❁ Consumer spending will be turning around as the stimulus packages have worked, rising by an average 2.3 percent growth. Light vehicle sales will improve to 12.5 million units as new more fuel-efficient vehicles start to come to market. Housing starts will be slightly better at a 0.98 million average and existing home sales will average 4.52 million. Business spending will still be down with a -0.3 percent loss. Federal government spending will fall to -0.7 percent as Iraq winds down and much of the recovery package has already been spent. State and local government spending will be up 2.9 percent as revenues start to improve and federal public works funds are spent.
- ❁ Consumer prices will be starting to rise again, but inflation will be modest at only 2.3 percent. With the deflation risk over and the economy starting to improve, the Fed Funds rate will average 0.94 percent. World oil prices will be inching higher, but still averaging a reasonable \$51 per barrel.
- ❁ Nonfarm employment will bottom out with 0.0 percent growth. Service-based economies grow more slowly in recoveries than do manufacturing-based economies. Unemployment, always a lagging indicator that is worse in the year after the downturn, will be 9.1 percent.

Outlook for CY 2011

- ✿ The economy will be nearer to recovery with average 3.2 percent GDP growth, the first year since CY 2004 with growth above the 3.0 percent long-range trend line. Consumer spending will still be up 2.3 percent. New light vehicle sales will be up to an average 14.5 million units. The housing market will be reviving with average new starts up to 1.34 million and average existing home sales reaching 4.93 million. Business spending will be rising an average 12.7 percent. Federal government spending should drop -2.0 percent on average as the Middle East situation improves and the stimulus packages phase out. State and local government spending will rise an average 0.2 percent. Tax revenues will be better, but federal aid to states and localities will be waning.
- ✿ Inflation with recovery will average 3.4 percent. The Federal Reserve will have shifted to fighting inflation again with a Fed Funds rate averaging 3.34 percent. World oil prices will be creeping higher to average \$77 per barrel as world demand increases.
- ✿ Nonfarm employment should increase an average 1.6 percent, and unemployment will be receding to an average 8.5 percent rate.

The baseline forecast has a 60 percent probability.

Major Assumptions

- ✿ The events of the last eighteen months have proven a real challenge for the Federal Reserve's normally well-managed monetary policy. The U.S. financial markets imploded in August and September 2008 in spite of efforts all year by the Federal Reserve to remedy things. The Federal Reserve had dropped the Fed Funds rate from 5.25 percent in September 2007 to 2.00 percent by spring 2008. These financial market problems came from the low lending rates to stimulate the economy from CY 2001 to CY 2004, and lax lending requirements allowed financial institutions to promote home buying to consumers who really could not afford it in order to make huge profits for the financial institutions. There was much speculation in residential real estate. With rising interest rates from CY 2005 to CY 2007, many buyers found they could no longer pay rising adjustable rate mortgages, and they now owed more on the property than it was worth, so they just walked

away, letting the financial institutions take over. As this happened, the financial institutions found they also had more money tied up in properties that were worth less than the loans. As the situation worsened through CY 2008, the financial institutions became more and more unsure and reluctant to lend to even the best borrowers. By late summer 2008, the Federal Reserve, realizing the financial problems were becoming *too big* for it to handle by itself, sought assistance from the U.S. Treasury. The Treasury and Federal Reserve went before the U.S. Congress to ask for legislation for the federal government to buy as much as \$700 billion in distressed mortgage-backed assets to prevent the financial system from failing. The emergency of the situation caused Congress to act, and the Troubled Assets Relief Program (TARP) was passed in October 2008. The Federal Reserve, on December 16, 2008, decided to establish a target range for the Fed Funds rate of 0.0 to 0.25 percent, an unprecedented low. The Federal Reserve has lowered the Fed Funds rate nine times since September 2007. The Federal Reserve has, at the end of CY 2008, pretty much run the course of its conventional methods to control the economy. It will likely keep the Fed Funds rate at the 0.0 to 0.25 percent range for all of CY 2009. The Fed Funds rates likely will average 0.13 percent for CY 2009; 0.94 percent for CY 2010; and, with some tightening by then, 3.34 percent by CY 2011.

- ✿ Fiscal policy in recent years has taken something of a backseat to monetary policy, but this time because the Federal Reserve has largely already used up most of its bag of tricks to bring the economy in line, fiscal policy will have to be the primary means to get the U.S. economy out of crisis. Federal government spending only grew by 1.6 percent in CY 2007. By CY 2008, federal government spending rose by a projected 5.7 percent. This federal spending increase was first to pay for the surge in Iraq, in order to improve that situation, and to provide the rebate checks to U.S. taxpayers in the second quarter, with the goal being to boost U.S. GDP growth. The tax rebate checks to some extent worked, boosting GDP growth by 2.8 percent in the second quarter, but the worsening economic news scared consumers away from spending for the intended purpose of boosting economic growth. By Third Quarter 2008, GDP growth turned down by -0.5 percent. As more and more problems in the nation's financial markets came

U.S. Forecast Highlights

to light in late summer, the U.S. Treasury was forced to:

- » Take over the quasi-government mortgage financing companies of Fannie Mae and Freddie Mac.
- » Loan American International Group, Inc. (AIG Insurance) \$85 billion in return for 80 percent ownership.

By late summer 2008, the Federal Reserve, realizing the financial problems were becoming too big for it to handle by itself, sought assistance from the U.S. Treasury. The Treasury and Federal Reserve went before the U.S. Congress to ask for legislation for the federal government to buy as much as \$700 billion in distressed mortgage-backed assets to prevent the financial system from failing. The Troubled Assets Relief Program (TARP) was passed in October 2008. This all-encompassing legislation gives the U.S. government broad authority to purchase soured mortgage-related assets from U.S. financial institutions for the next two years. The natural difficulties of transition between the outgoing Bush administration and the new in-coming Obama administration, although the two have tried to work together, has undoubtedly complicated and made

more difficult the speedy implementation of TARP to rescue the economy. The banks have remained very reluctant to lend to promote growth, and some of the monies that were initially supposed to buy up the bad mortgages seemed to now be channeled to loans and assistance to troubled banks and other troubled financial businesses. This process is still evolving—although one-half of the \$700 billion of the TARP monies has been spent as we go to press. Also, in this presidential transition period, the Big Three domestic automakers sent executives to Congress to ask for loan assistance to keep them afloat until more fuel-efficient vehicles can be developed. After twice being rebuffed for loans by Congress (Ford dropped out of the quest along the way), they now have asked outgoing President Bush for loans from TARP to tide them over until March 2009, after the new Obama administration has taken office. President Bush has agreed. Even before he is sworn into office on January 20, 2009, President-elect Obama has asked Congress for speedy passage of his proposed massive recovery package (probably about \$825 billion—it is still evolving) to fix the sagging economy. It looks like this economic rescue package will be in the form of tax rebates, transfer payments (extended unemployment benefits), and public works spending. The goal is to put people back to work quickly—creating 3 million jobs. President-elect Obama has urged enactment by mid-February 2009. The TARP and the proposed recovery package will add tremendously to the federal budget deficit with it rising from \$162 billion in CY 2007 to a projected \$455 billion in CY 2008, \$1,349 billion in CY 2009, \$987 billion in CY 2010, and \$837 billion in CY 2011.

State and local governments will face challenging times since they have to have balanced budgets by law. The state and local governments' main savior will be federally funded capital spending as part of the recovery package. Combined state and local government spending is expected to increase 1.2 percent in CY 2008 (still running on previous revenues), 0.4 percent in CY 2009, 2.9 percent in CY 2010 (federal recovery package monies pass through the system), and 0.2 percent in CY 2011.

- ✿ National nonagricultural payroll employment (the job count) rose at an average 1.1 percent in CY 2007, reaching a level of 138 million jobs in December 2007 as the business cycle peaked. Average job loss





in CY 2008 is projected at -0.2 percent. Nonfarm employment nationally is expected to recede -2.6 percent in CY 2009, be unchanged in CY 2010, and start to advance at a 1.6 percent rate in CY 2011. A characteristic of service-based economies is that they grow slowly.

- ✿ The national unemployment rate, a lagging economic indicator, averaged 4.6 percent in CY 2006 and CY 2007. Unemployment is expected to average 5.8 percent in CY 2008 and move up to average 8.5 percent in CY 2009 and 9.1 percent in CY 2010 (unemployment is usually highest the year after the recession ends because it takes time for the displaced to be rehired). Unemployment should be receding in CY 2011 to 8.5 percent.
- ✿ Recently declining interest rates and slower growth in the U.S. had been reducing the value of the U.S. dollar. This made imported goods more expensive to U.S. consumers, but it greatly improved the competitive position of U.S. goods producers. After mid-CY 2008, the rest of the world quickly followed the U.S. into recession as the financial markets imploded. Worldwide, the recession is likely to be the worst since the 1930s.
- ✿ The averages for CY 2008 are expected to be 0.91 million housing starts and 4.86 million existing home sales, down significantly from 2.07 million housing starts and 7.08 million existing home sales at the peak in CY 2005. CY 2009 hopefully will see a bottoming out at 0.60 million average housing starts and 4.44 million average existing home sales; CY 2010 should see recovery to 0.98 million average housing starts and 4.52 million average existing home sales; and CY 2011 should have 1.34 million average housing starts and 4.93 million average existing home sales. For the economy to really recover, two things need to happen:

1. A floor needs to be put under plummeting home prices, which have dropped nationally by 20 percent from CY 2005 to CY 2008 and are expected to fall another 15 percent in CY 2009. The loss of equity in home values has caused consumers to stop spending for big-ticket durables.
 2. Liquidity needs to be restored to financial markets so lending and normal commerce can resume. In recent months, over half of the prospective home and car buyers could not get financing.
- ✿ U.S. light vehicle sales are now projected to average 13.1 million units in CY 2008, 10.3 million units in CY 2009, 12.5 million units in CY 2010, and 14.5 million units in CY 2011. The domestic producers need at least a 14 to 15 million unit sales volume to stay in business.
 - ✿ World oil prices averaged \$100 per barrel in CY 2008 because of price spikes in the first-half of the year. World oil prices are now projected to average \$34 per barrel in CY 2009, \$51 per barrel in CY 2010, and \$77 per barrel in CY 2011. The recession has dropped oil prices for now, but reviving world demand will eventually nudge prices higher. As always, the energy sector can quickly become very volatile.

Forecast Alternatives

The **pessimistic scenario** has a long and deep worldwide recession (probability is 20 percent).

The **optimistic scenario** has monetary and fiscal stimulus working better than expected (probability is 20 percent).

Forecast Analysis



Last year, at this time, the forecast was that the U.S. economy, after avoiding a classic “seven”-year slowdown in CY 2007,* would have a period of little growth in the first half of CY 2008 as a result of what was known then about problems in the real estate and financial markets. The forecast was for slow to no growth in first, second, and possibly third quarters CY 2008, but because of fixes in the form of lower interest rates from the Federal Reserve, recession would narrowly be avoided. (The Federal Reserve dropped the Fed Funds rate [its primary interest rate] 325 basis points [3.25 percent] to 2.00 percent from September 2007 to spring 2008.) By the time of the national presidential election in November 2008, the economy was expected to be on the upswing. The forecast last year stated “the big problem is any kind of further shock to the economy could probably tip the balance toward recession.” Unfortunately, the economy suffered a number of shocks in CY 2008.

- ✿ The U.S. Department of Commerce revised the Gross Domestic Product (GDP) numbers for CY 2007 in July 2008, along with the GDP series for several past years, as it does annually each summer. This revision takes place after all the contributing agencies have updated their information, which goes to make up GDP, to the very latest benchmarks. (GDP is the sum of the output of all the goods and services produced by labor and property in the U.S. economy and is

the key measure of economic gain or loss). The Commerce Department’s latest revisions show GDP was growing at a slower pace than thought. The annual growth rate was only 2.0 percent in CY 2007, slower than the pre-revision estimate of 2.2 percent. Also, the revision of the series for recent back years shows lower growth than originally projected for the last 3 years.

- ✿ The new figures show that so far in this decade, economic performance has not been all that great. The average rate of GDP gain for the last 20 years is still 3.0 percent, but for the years CY 2001 through CY 2007, CY 2004 was the only year of above average growth (3.6 percent). The economy had not been performing as well in this decade as had been believed. Now in CY 2008, the economy weakened even more.
- ✿ World oil prices started rising from less than \$100 per barrel at the beginning of CY 2008, skyrocketing to \$147 per barrel by July. The sharp spike was much higher than the supply/demand situation would appear to have warranted, but oil prices were driven by speculation and high anticipated demand from emerging economies, especially associated with the needs of the much publicized summer World

U.S. Annual GDP Growth Rates CY 2001 to CY 2007 (Percent)

	2001	2002	2003	2004	2005	2006	2007
Revised Estimates	0.8	1.6	2.5	3.6	2.9	2.8	2.0
Pre-revision Estimates	0.8	1.6	2.5	3.6	3.1	2.9	2.2

*Economic slowdowns have happened in the “seven” year of the decade in four of the five previous decades—CY 1957, CY 1967, CY 1987, and CY 1997.

Olympics in Beijing, China, in August. Oil prices nose-dived once the Olympics and the summer driving season were over, but not before world and especially the U.S. demand for vehicles had been significantly altered. In the U.S., the sales of light vehicles plummeted from 16.1 million units in CY 2007 to only 10.1 million units by November 2008, and the Big Three domestic auto producers—General Motors, Ford, and Chrysler—were on the verge of collapse.

- ✿ U.S. financial markets imploded in August and September 2008 in spite of efforts all year by the Federal Reserve to remedy things, such as the March 2008 forced sale of Bear Stearns (the nation's fifth-largest investment bank) to J.P. Morgan Chase with the Federal Reserve guaranteeing \$29 billion of Bear Stearns' subprime assets. The Federal Reserve also opened its discount lending to investment banks. The Federal Reserve had already dropped the Fed Funds rate from 5.25 percent in September 2007 to 2.00 percent by spring 2008.

» These financial market problems came from the low lending rates to stimulate the economy from CY 2001 to CY 2004 and lax lending requirements allowed financial institutions to promote home buying to consumers who really could not afford it in order to make huge profits for the financial institutions. This was fine as long as real estate values escalated, because the consumer could always sell at a profit and move on to a bigger and better house. There was much speculation in residential real estate, especially in California, Florida, Nevada, and Arizona. With rising interest rates from CY 2005 to CY 2007, many buyers found they could no longer pay rising adjustable rate mortgages, and they now owed more on the property than it was worth, so they just walked away from it, letting the financial institutions take it over. As this happened, the financial institutions found they also had more money tied up in properties that were worth less than the loans. The increased number of properties on the market depressed home prices even more. To make matters worse, the mortgages, once they were issued, became packaged investment instruments traded around the world, and large financial institutions found they owned unsaleable real estate of uncertain value. As the situation worsened through CY 2008, the financial institutions became

more and more unsure and reluctant to lend to even the best borrowers.

» By late summer 2008, the Federal Reserve, realizing the financial problems were becoming too big for it to handle by itself, sought assistance from the U.S. Treasury. Treasury Secretary Henry Paulson and Federal Reserve Chairman Ben Bernanke went before the U.S. Congress to ask for legislation for the federal government to buy as much as \$700 billion in distressed mortgage-backed assets to prevent the financial system from failing. Just before, or about the same time, the legislative package was being debated and drawn up by Congress:

- The U.S. Treasury took over the quasi-government mortgage financing companies of Fannie Mae and Freddie Mac, backing them to the tune of \$200 billion and giving the federal government an 80 percent stake in the companies.
- The Federal Reserve allowed investment banker Lehman Brothers to fail and forced the sale of investment banker Merrill Lynch to Bank of America.
- The U.S. Treasury loaned American International Group, Inc. (AIG Insurance) \$85 billion in return for 80 percent ownership. AIG was the insurer of the financial industry and was deemed "too big to fail." AIG later requested and got a further loan.
- The Federal Reserve forced the takeover of Washington Mutual Savings by J.P. Morgan Chase to help it stay solvent.
- Wachovia, the nation's fifth-largest bank, was forced to be sold to Wells Fargo.

- ✿ The emergency of the situation caused Congress to act, fairly quickly for Congress, and the Troubled Assets Relief Program (TARP) was passed in October 2008. TARP enacted unprecedented legislation for the government to buy as much as \$700 billion in distressed mortgage-backed assets to prevent the financial system from collapsing. Tacked on to the legislation were tax incentives and the raising of FDIC insurance for individual bank accounts from \$100,000 to \$250,000.

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mortgage-related assets from U.S. financial institutions for the next two years.

- » How much the government and the taxpayers could lose from the buyout depends on the price paid for the assets.
- » The takeover of the mortgage-backed assets on such a large scale is similar to the creation of the 1980's Resolution Trust Corporation that rescued the failed savings and loans.
- » In the end, the legislation allows the U.S. government to purchase discounted and distressed assets from the banking system. This, hopefully, will create liquidity and put a bottom under the housing market while reducing investor uncertainty. The legislation will help restore confidence in the financial system and enable financial institutions to raise capital and expand credit to promote growth.
- » It will cost the banks and the U.S. taxpayers much, but the financial system should be saved. If the legislation works, some parts of it should return a profit to the government.
- » Strong new regulations likely will be put in place to prevent these sort of financial excesses in the future. For the past two decades the Republican administrations have promoted less regulation of

the financial system, wanting "free markets" to reign; and the Democrats, in an effort to promote their agenda of affordable housing, have been nonchalant about seeing that regulations were enforced, as long as things were going well. Many safeguards put in place after the 1930s depression were abandoned. Thus, many "financially innovative" schemes have been allowed to get into deep trouble over the last couple of years.

- ✿ While the financial markets were in turmoil, a national presidential election was going on. Because of all the emerging financial problems, the general dissatisfaction over the way the twin wars in Iraq and Afghanistan have been handled, and the low popularity of the incumbent Republican President George W. Bush, the Democratic candidate, Barack Obama, an African American, was elected the 44th U.S. President on November 4, 2008; and the Democratic party gained a fairly big majority in both houses of Congress.
- ✿ The natural difficulties of transition between the outgoing Bush administration and the new in-coming Obama administration, although the two have tried to work together, has undoubtedly complicated and made more difficult the speedy implementation of TARP to rescue the economy.

- » The banks have remained very reluctant to lend to promote growth, and some of the monies that were initially supposed to buy up the bad mortgages seemed to now be channeled to loans and assistance to troubled banks and other troubled financial businesses. This process is still evolving—although one-half of the \$700 billion of the TARP has been spent as we go to press.
 - » As the economy has continued to worsen, the Federal Reserve in an effort to assist, at its December 16, 2008, Open Market Committee meeting, decided to establish a target range for the Fed Funds rate of 0.0 to 0.25 percent, an unprecedented low. The Federal Reserve has lowered the Fed Funds rate nine times since September 2007.
 - ⌘ Also, in this presidential transition period, the Big Three domestic automakers sent executives to Congress to ask for loan assistance to keep them afloat until more fuel-efficient vehicles can be developed. After twice being rebuffed for loans by Congress (Ford dropped out of the quest along the way), they now have asked outgoing President Bush for loans from TARP to tide them over until March 2009, after the new Obama administration has taken office. President Bush has agreed, saying he did not want to leave any greater economic problems for his successor. As we go to press, it seems like GMAC (the former financial lending portion of General Motors) has also gotten in on the loans.
- spending to provide the rebate checks and to pay for the defense-surge in Iraq. The acceleration in GDP growth in the second quarter was aided by reduced imports as consumers cut back on energy purchases (foreign oil).
- ⌘ Third quarter GDP turned negative by -0.5 percent as the spring's tax rebate checks had passed through the system, oil hit \$147 per barrel on world markets in July, and regular gasoline was up over \$4.10 per gallon. About the time the summer driving season peaked and the Beijing, China, World Olympics took place, oil and gasoline prices started to fall. Commodity prices, which had been high all year, started to skid right at harvest time. U.S. exports, which were the main thing holding up GDP growth, started to soften as other world economies also turned down. In spite of efforts all year by the Federal Reserve to contain the mortgage market problems, the financial markets really imploded in August and September. The Democrats and Republicans selected their presidential candidates and stepped up campaigning, which had actually been going on for a couple of years. September hurricanes did considerable damage to Galveston and Houston, Texas.
 - ⌘ Fourth quarter saw the financial problems worsen and Congress pass and the President sign the emergency TARP legislation, which was at first supposed to buy up the bad mortgages, but now seems more aimed at shoring up the financial institutions and restoring liquidity, which had all but stopped, to commerce. The Federal Reserve continued to drop interest rates, on December 16, lowering the Fed Funds rate to an unprecedented 0.0 to 0.25 percent range. The presidential elections took place on November 4, and Democrat, Barack Obama, was elected by a substantial margin. The presidential transition period was made more difficult, not by a lack of cooperation between the incumbent and president-elect, but by implementation of TARP and the worsening economic situation. The domestic automakers came begging for government funds to bail them out; and after being rebuffed twice by Congress, got the Bush administration to have the Treasury loan General Motors and Chrysler out of the TARP funds, enough to keep them afloat financially until March. Layoffs mounted at year's end; and winter storms, hampering shoppers, made the holiday sales season the worst

CY 2008 in Review

- ⌘ The signs of the economic slowdown appeared in Fourth Quarter 2007. Before revisions, GDP growth in Fourth Quarter 2007 was positive by 0.6 percent; after revisions by the U.S. Department of Commerce, it was negative by -0.2 percent. However, it usually is considered to take two, or more, quarters of negative growth to have a recession; and First Quarter 2008 growth was positive by 0.9 percent. Oil and gasoline prices rose.
- ⌘ Second Quarter 2008 GDP growth was positive by an annual rate of 2.8 percent. The increase reflected strong positive contributions from U.S. exports, consumers' spending of the tax rebate checks (which the President and Congress provided in the spring), commercial construction, and government

Forecast Analysis

since 1969. On December 1, the National Bureau of Economic Research (NBER), the Princeton, New Jersey, group that designates recessions in the U.S., did not wait for the usual two quarters of negative growth and declared the U.S. had been in recession since December 2007 because of the unusual strains on the economy. A bright spot—world oil prices fell below \$40 per barrel in December and regular gasoline was \$1.30 to \$1.60 per gallon.

- ✿ Final Fourth Quarter 2008 GDP numbers will not be available until March 2009, but it now looks like the economy is in free-fall, with GDP being down as much as -5.0 percent and unemployment rising sharply to 7.1 percent (not seasonally adjusted) by December.

Basic economic number averages for CY 2008 should turn out as follows:

- ✿ Economic growth in CY 2008 should average 1.2 percent GDP gain because of growth in the first quarter (0.9 percent) and, especially, the second quarter (2.8 percent due to the tax rebates). The third (-0.5 percent) and fourth quarters see declines that should pull the annual average down. GDP annual average growth is expected to be positive, although the NBER has now officially said the U.S. recession started in December 2007.
- ✿ Consumer spending growth by the 94.2 percent of the labor force that still have jobs should average only 0.3 percent as consumers burdened by sky-high fuel prices the first half of the year, rising unemployment, and fear over loss of equity in the housing and financial markets bought little other than essentials. The financial market crisis killed many big-ticket purchases as better than half the customers could not get financing. Vehicle and housing sales plummeted. New light vehicle sales were down from an average 16.1 million units in CY 2007 to a projected 13.1 million units in CY 2008. New housing starts fell from 1.34 million in CY 2007 to a projected 0.91 million in CY 2008, and existing home sales went from 5.67 million in CY 2007 to a projected 4.86 million in CY 2008. Business spending also grew less—from 4.9 percent in CY 2007 to a projected 1.9 percent in CY 2008. Federal government spending growth was a projected 5.7 percent, up from 1.6 percent growth in CY 2007, to pay for the surge in military activity in Iraq and Afghanistan, pay for the tax rebate checks in the spring, and to fund the first of the TARP bailout monies. State and local government spending growth fell from 2.3 percent in CY 2007 to a projected 1.2 percent in CY 2008 as tax revenues began to dry up with the weakening economy.
- ✿ The Federal Reserve reduced the Fed Funds rate, going from 4.25 percent in December 2007 to a 0.0 to 0.25 percent range in December 2008 in order to induce more loan liquidity into markets. The Fed Funds rate averaged 1.93 percent in CY 2008, compared to 5.02 percent in CY 2007. The Federal Reserve, delving deeper into financial markets, forced the sale of Bear Stearns to J.P. Morgan Chase and Merrill Lynch to Bank of America and allowed Lehman Brothers to fail. It also forced the takeover of Washington Mutual Savings to J.P. Morgan Chase and Wachovia, the fifth-largest bank, to Wells Fargo. Realizing the financial problems were too big to handle alone, the Federal Reserve teamed up with the U.S. Treasury to beg Congress to enact the TARP legislation.
- ✿ The real activity shifted from monetary policy to fiscal policy in CY 2008. First there were the tax rebate checks in the second quarter, plus increased spending for Iraq and Afghanistan. Then there was the U.S. Treasury takeover of the quasi-government, Fannie Mae and Freddie Mac, mortgage companies in August, the AIG loans, the TARP in October, and the “bridge loans” to General Motors and Chrysler to tide them over to the new administration.
- ✿ Sharp spikes in energy and commodity prices in first, second, and into third quarter pushed up average consumer prices (or inflation) in CY 2008 to 3.8 percent from a 2.9 percent average in CY 2007. Consumer prices were dropping by an estimated -9.3 percent in Fourth Quarter 2008, largely because of the drastic fall in energy prices, but the first three quarters kept average inflation for CY 2008 high.
- ✿ Nonagricultural employment in the nation turned negative in Second Quarter 2008 and should show an average job loss of -0.2 percent for CY 2008. This compared with an average job gain of 1.1 percent in CY 2007. Industries with the biggest job losses were construction, manufacturing, finance, and trade and transportation. Education and health care, professional and business services, total government, and mining remained positive. The big job losses are in about ten large states—on the two coasts and in the manufacturing-oriented Great Lakes states.



Texas and Oklahoma and the Rocky Mountain states benefitted from energy much of the year; and the agricultural middle of the country was still adding jobs, as was Virginia.

- ✿ The U.S. unemployment rate moved up from a 4.6 percent average in CY 2007 to an expected 5.8 percent average in CY 2008.

The Future

The NBER on December 1, 2008, officially declared the U.S. economy to be in recession, starting in December 2007. The NBER did not wait for the usual two consecutive quarters of negative growth to be confirmed, saying the U.S. economy has been in a weakened state for a year now. The average Post-World War II recession period lasted for just over 10 months, with the longest being 16 months for both the 1974-75 and 1981-82 recessions. With the current recession already one-year old, according to the NBER, this could become the longest downturn since the Great Depression of the 1930s, because at least two to three more quarters, going into CY 2009, are expected to see negative growth. With the changed composition of the aging U.S. labor force (a labor force that has had to bring in several million foreign workers in recent years just to fill the jobs that needed to be filled), it does not appear that unemployment will top the 10.8 percent level in CY 1982, although the national unemployment rate is likely to average over 9 percent by CY 2010. Also, keeping unemployment slightly lower this time is the fact that, if there is a really big reduction in the demand for factory goods, those layoffs will be more in China and India, where much production is now centered, than in the United States. Unemployment is often higher the year after the recession because of the cumulative effect of layoffs. Unemployment is always a lagging indicator, the last to turn around in good times and bad. Recoveries in service economies appear to be much slower than in manufacturing economies as was evident in CY 1992 and CY 2002. It may

be CY 2012 before national unemployment drops below 8 percent. For recovery to start, home prices have got to bottom out and liquidity needs to be restored to the banking system.

Outlook for CY 2009

- ✿ CY 2009 should be the worst period of the recession with at least two to three quarters of negative GDP growth. GDP should average -2.5 percent negative for the year.
- ✿ Consumer spending growth should be negative for at least the first two quarters and average -0.9 percent for the year. Light vehicle sales should further slump to average 10.3 million units. Housing should hit bottom at 0.60 million average new starts and 4.44 million average existing home sales. Declining consumer demand and tight credit will reduce business spending an average -15.1 percent. The demand for commercial construction is now declining as is the demand for retail and office space. Federal government spending will be up an average 3.2 percent with monies for the TARP bailout of the banks and motor companies, the wars in Iraq and Afghanistan, extended unemployment benefits, and public works projects to help states and localities to get the economy rolling again. The federal deficit will skyrocket to \$1,349 billion. Reduced revenues will cause only a 0.4 percent gain in state and local government spending. Much of this is likely to come from federal monies for public works projects.
- ✿ The recent 60 to 80 percent collapse in commodity prices is unprecedented and should be reaching grocery stores in CY 2009. Oil has been below \$40 per barrel and should average \$34 per barrel in CY 2009—bad news for producers, but good news for consumers. The low energy prices are like a tax cut to consumers and businesses. There will be a period of deflation with consumer prices averaging -2.2 percent lower. The Fed Funds rate will average only 0.13 percent, and the Federal Reserve may have to resort to the purchase of long-term treasuries.
- ✿ Job losses will further reduce U.S. nonfarm payroll employment by an average -2.6 percent. Unemployment will rise to average 8.5 percent as more jobs are lost in construction, manufacturing, retailing, finance, and state and local governments. Average personal income will only be up 0.8 percent.

Outlook for CY 2010

- ✿ GDP will be starting to recover and turning back positive to 2.2 percent average growth.
- ✿ Consumer spending will be turning around as the stimulus packages have worked, rising by an average 2.3 percent growth. Light vehicle sales will improve to 12.5 million units as new more fuel-efficient vehicles start to come to market. Housing starts will be slightly better at a 0.98 million average and existing home sales will average 4.52 million. Business spending will still be down with a -0.3 percent loss. Federal government spending will fall -0.7 percent as Iraq winds down and much of the recovery package has already been spent. State and local government spending will be up 2.9 percent as revenues start to improve and federal public works funds are spent.
- ✿ Consumer prices will be starting to rise again, but inflation will be modest at only 2.3 percent. With the deflation risk over and the economy starting to improve, the Fed Funds rate will average 0.94 percent. World oil prices will be inching higher, but still averaging a reasonable \$51 per barrel as conservation to some extent balances world demand.
- ✿ Nonfarm employment will bottom out with 0.0 percent growth. Service-based economies grow more slowly in recoveries than do manufacturing-based economies. Unemployment, always a lagging indicator that is worse in the year after the downturn, will be 9.1 percent. Average personal income will increase 2.5 percent.

Outlook for CY 2011

- ✿ The economy will be nearer to recovery with average 3.2 percent GDP growth, the first year since CY 2004 with growth above the 3.0 percent long-range trend line. Consumer spending will still be up 2.3 percent. New light vehicle sales will be up to an average 14.5 million units, but still way below the 16 million unit sales the industry would like and had become accustomed to at mid-decade. The housing market will be reviving with average new starts up to 1.34 million and average existing home sales reaching 4.93 million. Business spending will be rising an average 12.7 percent. Federal government spending should drop -2.0 percent on average as the Middle East situation improves and the stimulus packages phase out with the strengthening economy. State and local

government spending will rise an average 0.2 percent. Tax revenues will be better, but federal aid to states and localities will be waning.

- ✿ Inflation with recovery will average 3.4 percent, slightly higher than the Federal Reserve would like. The Federal Reserve will have shifted to fighting inflation again with a Fed Funds rate averaging 3.34 percent. World oil prices will be creeping higher to average \$77 per barrel as world demand increases.
- ✿ The employment situation will be improving, but service-based economies grow slowly. Nonfarm employment should increase an average 1.6 percent, and unemployment will be receding to an average 8.5 percent rate. Average personal income should increase 4.5 percent.

The baseline forecast has a 60 percent probability.

In Summary

The U.S. economy is already in what likely will prove to be the longest recession since the depression of the 1930s with not many signs of recovery before CY 2010. The economy got here because of the crises in the housing and financial markets and a wildly fluctuating energy market. The composition of the aging U.S. labor force and low birth rates in the 1970s and 1980s will probably keep unemployment below 10 percent, but the service-based economy will recover very slowly, not getting back to many levels achieved at mid-decade until beyond the forecast period. Steps are being taken to resolve many of the mortgage, financial, and energy problems and prevent their reoccurrence in the future, but a massive deficit likely will have been incurred in the process. Paramount to recovery are achieving a floor under home prices and restoring liquidity to the banking system.



Major Forecast Assumptions

The preceding forecast is based on the following:

Monetary policy

The Federal Reserve for at least the last two decades has successfully been able to keep the U.S. economy on an even keel—growing at a moderate rate without severe recessions or overly aggressive inflation. The Federal Reserve has accomplished this through its astute management of monetary policy—the raising and lowering of its Fed Funds rate—which, in turn, controls interest rates and bank lending. The events of the last eighteen months have proven a real challenge for the Federal Reserve’s normally well-managed monetary policy.

- ✿ U.S. financial markets imploded in August and September 2008 in spite of efforts all year by the Federal Reserve to remedy things, such as the March 2008 forced sale of Bear Stearns (the nation’s fifth-largest investment bank) to J.P. Morgan Chase with the Federal Reserve guaranteeing \$29 billion of Bear Stearns’ subprime assets. The Federal Reserve also opened its discount lending to investment banks. The Federal Reserve had already dropped the Fed Funds rate from 5.25 percent in September 2007 to 2.00 percent by spring 2008.

» These financial market problems came from the low lending rates to stimulate the economy from CY 2001 to CY 2004, and lax lending requirements allowed financial institutions to promote home buying to consumers who really could not afford it in order to make huge profits for the financial institutions. This was fine as long as real estate values escalated, because the consumer could always sell at a profit and move on to a bigger and better house. There was much speculation in residential real estate, especially in California, Florida, Nevada, and Arizona. With rising interest rates from CY 2005 to CY 2007, many buyers found they could no longer pay rising adjustable rate mortgages, and they now owed more on the property than it was worth, so they just walked away from it, letting the financial institutions take it over. As this happened, the financial

institutions found they also had more money tied up in properties that were worth less than the loans. The increased number of properties on the market depressed home prices even more. To make matters worse, the mortgages, once they were issued, became packaged investment instruments traded around the world, and large financial institutions found they owned unsaleable real estate of uncertain value. As the situation worsened through CY 2008, the financial institutions became more and more unsure and reluctant to lend to even the best borrowers.

» By late summer 2008, the Federal Reserve, realizing the financial problems were becoming *too big* for it to handle by itself, sought assistance from the U.S. Treasury. Treasury Secretary Henry Paulson and Federal Reserve Chairman Ben Bernanke went before the U.S. Congress to ask for legislation for the federal government to buy as much as \$700 billion in distressed mortgage-backed assets to prevent the financial system from failing. Just before, or about the same time, the legislative package was being debated and drawn up by Congress:

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- » It will cost the banks and the U.S. taxpayers much, but the financial system should be saved. If the legislation works, some parts of it should return a profit to the government.
- » Strong new regulations likely will be put in place to prevent these sort of financial excesses in the future. For the past two decades the Republican administrations have promoted less regulation of the financial system, wanting “free markets” to reign, and the Democrats, in an effort to promote their agenda of affordable housing, have been nonchalant about seeing that regulations are enforced, as long as things were going well. Many safeguards put in place after the 1930s depression were abandoned. Thus, many “financially innovative” schemes have been allowed to get into deep trouble over the last couple of years.
- ❁ The natural difficulties of transition between the outgoing Bush administration and the new in-coming Obama administration, although the two have tried to work together, has undoubtedly complicated and made more difficult the speedy implementation of TARP to rescue the economy.
- » The banks have remained very reluctant to lend to promote growth, and some of the monies that were initially supposed to buy up the bad mortgages seemed to now be channeled to loans and assistance to troubled banks and other troubled financial businesses. This process is still evolving although one-half of the \$700 billion TARP monies have been spent as we go to press.
- » As the economy has continued to worsen, the Federal Reserve in an effort to assist, at its December 16, 2008, Open Market Committee meeting, decided to establish a target range for the Fed Funds rate of 0.0 to 0.25 percent, an



unprecedented low. The Federal Reserve has lowered the Fed Funds rate nine times since September 2007.

- ❁ The Federal Reserve has, at the end of CY 2008, pretty much run the course of its conventional methods to control the economy. It will likely keep the Fed Funds rate at its December 16, 2008, target range of 0.0 to 0.25 percent for all of CY 2009. These historic low rates as yet have done little to induce the banks to do more lending. The Federal Reserve is trying to stimulate lending by directly buying mortgage-based securities, and it also has a similar plan for the securitized consumer loan market.
- ❁ The Fed Funds rates likely will average 0.13 percent for CY 2009; 0.94 percent for CY 2010; and, with some tightening by then, 3.34 percent by CY 2011.
- ❁ Deflation is now a bigger immediate worry than inflation. Consumer price inflation may be down as much as -3.8 percent, due to plummeting energy costs, by Third Quarter 2009. Consumer price inflation is expected to average 3.8 percent in CY 2008, -2.2 percent in CY 2009, 2.4 percent in CY 2010, and 3.4 percent in CY 2011.

Fiscal policy

Fiscal policy in recent years has taken something of a backseat to monetary policy, but this time because the Federal Reserve has largely already used up most of its bag of tricks to bring the economy in line, fiscal policy will have to be the primary means to get the U.S. economy out of crisis.

Federal government spending only grew by 1.6 percent in CY 2007, which was less than the 2.3 percent increase in CY 2006. By CY 2008, federal government spending rose by a projected 5.7 percent.

- ⌘ This federal spending increase was first to pay for the surge in Iraq, in order to improve that situation, and to provide the rebate checks to U.S. taxpayers in the second quarter, with the goal being to boost U.S. GDP growth. The tax rebate checks to some extent worked, boosting GDP growth by 2.8 percent in the second quarter. The problem was most consumers used the tax rebates to pay wildly escalating fuel prices for foreign oil, pay off previous debts, or put the money in savings. The worsening economic news scared consumers away from spending for the intended purpose of boosting economic growth. By Third Quarter 2008, GDP growth turned down by -0.5 percent.
- ⌘ As more and more problems in the nation's financial markets came to light in late summer, the U.S. Treasury was forced to:
 - » Take over the quasi-government mortgage financing companies of Fannie Mae and Freddie Mac, backing them to the tune of \$200 billion and giving the federal government an 80 percent stake in the companies.
 - » Loan American International Group, Inc. (AIG Insurance) \$85 billion in return for 80 percent ownership. AIG was the insurer of the financial industry and was deemed "too big to fail." AIG later requested and received a further loan.
- ⌘ By late summer 2008, the Federal Reserve, realizing the financial problems were becoming too big for it to handle by itself, sought assistance from the U.S. Treasury. Treasury Secretary Henry Paulson and Federal Reserve Chairman Ben Bernanke went before the U.S. Congress to ask for legislation for the federal government to buy as much as \$700 billion in distressed mortgage-backed assets to prevent the financial system from failing.
- ⌘ The emergency of the situation caused Congress to act, fairly quickly for Congress, and the Troubled Assets Relief Program (TARP) was passed in October 2008. Tacked on to the legislation were tax incentives and the raising of FDIC insurance for individual bank accounts from \$100,000 to \$250,000.

- » This all-encompassing legislation gives the U.S. government broad authority to purchase soured mortgage-related assets from U.S. financial institutions for the next two years.
- » How much the government and the taxpayers could lose from the buyout depends on the price paid for the assets.
- » The takeover of the mortgage-backed assets on such a large scale is similar to the creation of the 1980s Resolution Trust Corporation that rescued the failed savings and loans.
- » In the end, the legislation allows the U.S. government to purchase discounted and distressed assets from the banking system. This, hopefully, will create liquidity and put a bottom under the housing market while reducing investor uncertainty. The legislation will help restore confidence in the financial system and enable financial institutions to raise capital and expand credit to promote growth.
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Major Forecast Assumptions

were initially supposed to buy up the bad mortgages seemed to now be channeled to loans and assistance to troubled banks and other troubled financial businesses. This process is still evolving—although one-half of the \$700 billion of the TARP monies have been spent as we go to press.

- ✿ Also, in this presidential transition period, the Big Three domestic automakers sent executives to Congress to ask for loan assistance to keep them afloat until more fuel-efficient vehicles can be developed. After twice being rebuffed for loans by Congress (Ford dropped out of the quest along the way), they now have asked outgoing President Bush for loans from TARP to tide them over until March 2009, after the new Obama administration has taken office. President Bush has agreed, saying he did not want to leave any greater economic problems for his successor. As we go to press, it seems like GMAC (the former financial lending portion of General Motors) has also gotten in on the loan.
- ✿ Even before he is sworn into office on January 20, 2009, President-elect Obama has asked Congress for speedy passage of his proposed massive recovery package (probably about \$825 billion—it is still evolving) to fix the sagging economy. It looks like this economic rescue package will be in the form of tax rebates, transfer payments (extended unemployment benefits), and public works spending to help the environment, improve education, and to improve the infrastructure. The goal is to put people back to work quickly—creating 3 million jobs. President-elect Obama has urged enactment by mid-February 2009.

Most experts seem to feel the best course for the nation is to quickly shock the economy out of the recession with more stimulus early rather than waiting until later (a lesson learned from the 1930s). The feeling seems to be to get the nation out of crisis, especially since, if the U.S. economy fails, most of the other world economies will also fail; then worry about paying for the recovery later. The TARP and the proposed recovery package will add tremendously to the federal budget deficit with it rising from \$162 billion in CY 2007 to a projected \$455 billion in CY 2008, \$1,349 billion in CY 2009, \$987 billion in CY 2010, and \$837 billion in CY 2011. Eventually, the new president will have to face tough spending choices, and many taxes will have to be raised to pay for TARP and the proposed recovery package.

State and local governments will face challenging times since they have to have balanced budgets by law. They can only borrow through expensive bond issues, and they cannot simply print more money as the federal government can and does. Income tax revenues from incomes and investments will fall as will gasoline tax revenues as people conserve and drive less. Real estate and property tax values have fallen sharply in this recession, and financially strapped tax payers likely will demand tax assessments be adjusted accordingly. The state and local governments' main savior will be federally funded capital spending as part of the recovery package. Combined state and local government spending is expected to increase 1.2 percent in CY 2008 (still running on previous revenues), 0.4 percent in CY 2009, 2.9 percent in CY 2010 (federal recovery package monies pass through the system), and 0.2 percent in CY 2011.

Employment and income

National nonagricultural payroll employment (the job count) rose at an average 1.1 percent in CY 2007, reaching a level of 138 million jobs in December 2007 as the business cycle peaked. Average job loss in CY 2008 is projected at -0.2 percent. December 2008 nonfarm employment was almost 136 million jobs. Nonfarm employment nationally is expected to recede -2.6 percent in CY 2009, be unchanged in CY 2010, and start to advance at a 1.6 percent rate in CY 2011. A characteristic of service-based economies is that they grow slowly. Productivity in the U.S. economy was up an average 1.4 percent in CY 2007, but productivity is expected to rise an average 2.6 percent in CY 2008 as the recession was occurring (in recessions, usually the least productive jobs are eliminated, so overall productivity rises). Productivity growth is expected to average 1.1 percent in CY 2009, 2.4 percent in CY 2010, and 1.1 percent in CY 2011.

Off-shoring will continue to cost the U.S. economy jobs as the pressure on companies to use every possible means of cutting costs in order to maintain their competitive edge continues. Most vulnerable sectors will continue to be manufacturing and call centers. With the recession going on, annual wage increases will likely be less than 3.0 percent.

The federal minimum wage rose to \$6.55 per hour on July 24, 2008, in the second of three yearly increases of \$.70 each passed by Congress in CY 2007. The third of these \$.70 increases, to \$7.25 per hour, should occur on July 24, 2009. Increases in the federal minimum wage give a slight boost to economic growth each time they take place. Workers at the minimum spend their wage increase, and they spend most of it at the same retail and service establishments where they

work. Thus, the rise in minimum wage increases circulation of money and means more business for these same retail and service establishments. In the short run, it slightly stimulates the economy, but down the road, it also causes slightly higher inflation. This time, overall inflation should not be a great concern before CY 2011.

The highly professional health care and education sectors are the most recession-proof industries and should continue to see some job growth. The high-skill, high-wage professional and business services may see job losses in CY 2009 in architects, engineers, advertising, general services to business, and at temporary worker providers. These subsectors should rebound by CY 2010 as these groups have to go back to work to help the rest of the economy rebound. Already, extra management consultants and tax and legal specialists are being hired to guide businesses through the recession, and the recovery package may mean additional federal contracting. The trade, leisure and hospitality, and service industries will have to fill some positions because of turnover and seasonality. The information industry will continue to see stiff competition. Manufacturing will continue to see big losses in both durable and nondurable goods, especially in motor vehicle-related durable goods. Construction employment likely will see more job losses before residential construction bottoms out in CY 2009. Commercial construction, which had held up well in CY 2008, probably will see losses now, but public works projects may help. State and local governments will probably have to reduce forces because of lower tax revenues, but public works monies may help here, also.

The generally considered parameters for unemployment rates are as follows:

- ⌘ Unemployment of 2.0 percent, or less, is considered a *labor shortage*. Many employers have difficulty keeping jobs filled, especially those with odd hours and lower pay.
- ⌘ Unemployment rates of 2.0 percent to 5.0 percent are considered to be *satisfactory* and *desirable*, with joblessness of 3.0 percent to 4.0 percent seeming to be ideal—at this level most employers can find qualified workers and most workers can easily move into jobs. Economic developers maintain areas with less than 3.0 percent unemployment are more difficult to sell to prospective employers.
- ⌘ An unemployment rate of 5.0 percent, or less, is generally considered to be *full employment*.

- ⌘ Unemployment rates from 5.0 percent to 6.0 percent are generally considered *acceptable*, but workers may experience some difficulty finding work.
- ⌘ Unemployment rates above 6.0 percent are causes for *some concern* and unemployment rates above 7.5 percent are generally considered to be *too high*. Efforts need to be taken to bring joblessness lower.

Unemployment is a very personal problem and sympathies and wishes for a speedy rehire are extended to anyone reading this who is jobless. Still, the unemployment problem is not widespread with 94.2 percent of the U.S. labor force being employed in CY 2008. Unemployment is very much a regional problem with Michigan (motor vehicles), California and Nevada (real estate speculation), the Carolinas (loss of textile manufacturing), and the Northeast (financial markets) being hardest hit. By contrast, states in the upper Midwest (South Dakota is lowest) and Rocky Mountains are generally below 4.0 percent unemployment.

The national unemployment rate, a lagging economic indicator, averaged 4.6 percent in CY 2006 and CY 2007. Unemployment is expected to average 5.8 percent in CY 2008 and move up to average 8.5 percent in CY 2009 and 9.1 percent in CY 2010 (unemployment is usually highest the year after the recession ends because it takes time for the displaced to be rehired). Unemployment should be receding in CY 2011 to 8.5 percent. Service type economies take longer to recover than manufacturing economies because the hiring process just takes longer for professional workers. Factory workers can be recalled quickly when production resumes, but many jobless service workers have to find completely new jobs because in many cases their former employer no longer exists.

Because of low domestic birth rates twenty to thirty years ago, the U.S. economy recently has had to import workers just to grow and fill all the jobs that need filling. This problem will become more acute a few years out as the baby-boom generation begins to retire in large numbers. Providing a well-trained labor force will become even more challenging as time goes on. For the above reasons, U.S. unemployment probably will not climb over 10.0 percent in this current recession. Also, when factory inventory layoffs occur, much production is now in China and India.

Foreign trade

Recently declining interest rates and slower growth in the U.S. had been reducing the value of the U.S. dollar. This

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made imported goods more expensive to U.S. consumers, but it greatly improved the competitive position of U.S. goods producers. The significant cumulative reduction in dollar value since CY 2002 has greatly improved the U.S. foreign trade position. Much of the rest of the world in CY 2007 was showing signs of *finally* recovering from the CY 2001 recession, and this means they were able to buy more goods from us. The U.S. trade (or current account) deficit peaked in CY 2006 at \$788 billion. CY 2007 saw the trade deficit slide to \$731 billion as exports increased faster than imports. This was the first improvement in the trade deficit since the CY 2001 recession. The trade deficit is projected to improve to \$666 billion in CY 2008. For the first half of CY 2008, exports were a major reason there was U.S. GDP growth of 0.9 percent in the first quarter and 2.8 percent in the second quarter. After mid-CY 2008, the rest of the world quickly followed the U.S. into recession as the financial markets imploded. The bad mortgages had been traded around the world, and many other countries also had inflated real estate markets. Exports have now deteriorated sharply. U.S. exports are expected to decline by 7.0 percent in CY 2009. The current account deficit should be \$297 billion in CY 2009, \$537 billion in CY 2010, and \$748 billion in CY 2011. The worldwide recession and plummeting energy prices will cause the decline. Worldwide, the recession is likely to be the worst since the 1930s.

Housing and light vehicles

The Federal Reserve, to prevent the U.S. economy from sinking into a deeper recession after the March to November CY 2001 recession and in the low-growth period that followed in CYs 2002 and 2003, instituted the lowering of the Fed Funds rate, and, in turn, interest rates, to 1.00 percent. The Fed Funds rate stayed at the low 1.00 percent rate for almost three years, until June 2004.

These very low interest rates allowed the housing and motor vehicle industries, two important sectors of the economy that usually collapse at the first sign of recession, to boom from CY 2002 into CY 2006. As a result of the excesses then, both industries have now experienced severe collapses. The burst of the housing bubble caused the collapse of financial markets, which, in turn, has thrown the U.S. and the rest of the world into recession (as detailed elsewhere in this publication).

Housing—The lower mortgage rates allowed by the low interest rates permitted many renters to become first-time homeowners and existing homeowners to trade-up to larger houses, using the equity built-up in their previous homes. The sellers' housing market was so good that things



began to overheat, especially in some West and East Coast markets, with people quickly turning over houses on speculation for big profits, and the average U.S. home price more than doubling.

The Federal Reserve increased the Fed Funds rate and, in turn, mortgage rates since June 2004, increasing the Fed Funds rate by 4.25 percent by June 2006 to 5.25 percent, at which time, it ceased to increase, and then left it unchanged until September 2007. The housing market peaked in First Quarter 2006, with housing starts being 2.12 million annualized and existing home sales being 6.79 million annualized, as consumers enjoyed “one last fling” before rising home prices and mortgage rates made housing unaffordable. Marginal buyers got mortgages, many of them flexible rate mortgages, in the above period; and when interest rates started to rise after June 2004, they could not afford to keep their new property purchases. In the CY 2006 to CY 2008 period, the inventory of unsold homes and foreclosures skyrocketed, especially in the sub-prime market, and home prices nosedived. New housing starts and existing home sales have both plummeted, being down to 0.67 million annualized for starts and 4.57 million annualized for existing home sales by Fourth Quarter CY 2008. Mortgage refinancing all but dried up. The averages for CY 2008 are expected to be 0.91 million housing starts and 4.86 million existing home sales, down significantly from 2.07 million housing starts and 7.08 million existing home sales at the peak in CY 2005. CY 2009 hopefully will see a bottoming out at 0.60 million average housing starts and 4.44 million

average existing home sales; CY 2010 should see recovery to 0.98 million average housing starts and 4.52 million average existing home sales; and CY 2011 should have 1.34 million average housing starts and 4.93 million average existing home sales.

The problem is that once a mortgage is issued, it is like any other negotiable instrument—it is sold and resold over and over, often going anywhere in the world, thus you have foreigners holding bad U.S. mortgages. No one yet seems to know the full scope and magnitude of the problem.

The Federal Reserve tried valiantly to handle the housing and financial crises; but in the fall of 2007, it teamed up with the U.S. Treasury to ask Congress for new legislation to shore up the failing economy. That legislation, passed in October 2008, was the Troubled Assets Relief Program (TARP), which is covered in more detail elsewhere in this publication. At first the TARP was supposed to buy up many of the bad mortgages held by financial institutions; but at the end of CY 2008 with about one-half of the \$700 billion already spent, TARP seems to be more of a bailout of the troubled financial institutions in the hope that liquidity, which had all but dried up, could be returned to financial markets.

The mortgage and foreclosure problems are worse in California, Florida, Nevada, and Arizona, where there was much real estate speculation, and in Michigan and Ohio, where many autoworkers have lost their jobs and, in turn, their homes.

For the economy to really recover, two things need to happen:

1. A floor needs to be put under plummeting home prices, which have dropped nationally by 20 percent from CY 2005 to CY 2008 and are expected to fall another 15 percent in CY 2009. The loss of equity in home values has caused consumers to stop spending for big-ticket durables.
2. Liquidity needs to be restored to financial markets so lending and normal commerce can resume. In recent months, over one-half of the prospective home and car buyers could not get financing.

The Federal Reserve's plan to buy mortgage-backed securities has helped, driving 30-year mortgage rates to about 5 percent; but presently the benefits appear confined to refinancing.

Commercial construction held up fairly well in CY 2008, but that phase of the industry is now also slumping.

When commercial rental leases come up for renewal, they are being renegotiated downward by 20 to 30 percent. New public works projects to improve the infrastructure should help commercial construction.

Light vehicles—The low financing costs from CY 2002 into CY 2006 also boosted the light vehicle market. Whenever vehicle sales would show signs of slowing, the vehicle manufacturers would come up with new financing schemes to keep vehicles moving out of the showrooms. Of course, the vehicle makers pushed high-content sport utility vehicles (SUVs) and light trucks because there was so much more profit for the manufacturers in producing them rather than more fuel-efficient cars. American consumers, because of the long distances traveled and the variety of things hauled, always seem to prefer big vehicles to smaller ones, provided the fuel to run them is cheap. For a time, interest rates were so low, that the manufacturers could afford to give away the financing, if consumers would just buy the highly profitable SUVs and light trucks.

The CYs 2006 and 2007 gasoline price spikes to \$3 per gallon in the U.S. for regular gasoline put a damper on the market for big SUVs and pickup trucks and reduced light vehicle sales from 17.0 million units in CY 2005 to 16.5 million units in CY 2006 and 16.1 million units in CY 2007. The manufacturers had done quite an amazing job through rebates and the various incentives to sell as many vehicles as they have in CY 2006 and CY 2007.

The domestic vehicle producers were stuck with a fairly fuel-inefficient inventory of vehicles at the start of CY 2008 because of the problem that it takes at least three years to get a new vehicle from design conception to showroom. Much of the inventory and those new models just now coming into the showrooms were designed back in the relatively "cheap" gasoline days of CY 2003 and CY 2004 when U.S. consumers said they wanted "big vehicles" with "high horsepower engines." The Japanese- and Korean-based vehicle producers, perhaps because they sell more products in the rest of the world where fuel prices are higher than the domestics, have done a better job of producing fuel-efficient hybrids and alternate fuel vehicles. Therefore, Toyota, Honda, and the Koreans continued to take vehicle market share away from the domestic vehicle makers.

Light vehicle makers then encountered big new obstacles to sales in CY 2008:

- World oil prices started rising from less than \$100 per barrel at the beginning of CY 2008, skyrocketing

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to \$147 per barrel by July. The sharp spike was much higher than the supply/demand situation would appear to have warranted, but oil prices were driven by speculation and high-anticipated demand from emerging economies, especially associated with the needs of the much publicized summer World Olympics in Beijing, China, in August. Sales of all light vehicles plummeted, but the sales of U.S. manufacturers plummeted more than the sales of Japanese and Korean manufacturers.

- ✿ In recent years, the U.S. manufacturers had de-emphasized less profitable fuel-efficient cars in favor of more profitable pickup trucks and SUVs. Pickup truck sales, which peaked in CY 2001 at 3.3 million units, were largely bought by home improvement and construction workers, and the collapsed housing market has killed those sales.
- ✿ To make matters worse, the values of pickups and SUVs bought in the last few years plummeted, so when prospective buyers try to trade-in their recent model truck or SUV for a more fuel-efficient car, they found they could not make a trade because they still owed more on their vehicle than it was now worth in the used vehicle market.
- ✿ Finally, just as fuel prices started to moderate, the crisis in the finance market hit and lending liquidity dried-up. Better than half the prospective vehicle purchasers could not get financing.

Oil prices then nosedived once the Olympics and the summer driving season were over, but not before world and

especially the U.S. demand for vehicles had been significantly altered. In the U.S., the sales of light vehicles plummeted from 16.1 million units annually in CY 2007 to only 10.1 million units annually by November 2008, and the Big Three domestic auto producers—General Motors, Ford, and Chrysler—were on the verge of collapse. Many dealerships failed, workers were laid off, and many other dealerships were put up for sale, but there were no buyers.

In the U.S. presidential transition period, the Big Three domestic automakers sent executives to Congress to ask for loan assistance to keep them afloat until more fuel-efficient vehicles can be developed. After twice being rebuffed for loans by Congress (Ford dropped out of the quest along the way), they now have asked outgoing President Bush for loans from TARP to tide them over until March 2009, after the new Obama administration has taken office. President Bush has agreed, saying he did not want to leave any greater economic problems for his successor. Part of the stipulations of the loans to tide them over until March is that General Motors and Chrysler have to prove that they can become viable, profitable companies again. As we go to press, it seems like GMAC (the former financial lending portion of General Motors) also has gotten in on the loan.

The Big Three probably will not survive as the entities we know today, with Chrysler being the weakest. There will probably be some sort of merger, buy-out, or consolidation. Chevrolet and Cadillac are the stronger General Motors makes (Chevrolet will have the new electric Volt). Jeep and the mini-vans are likely to be sold to someone else, if Chrysler goes under.

The real dilemma facing the domestic manufacturers, aside from finances, is—will U.S. consumers really buy the new fuel efficient vehicles being developed, now that gasoline prices are likely to be moderate for the next several years? Per barrel oil prices are now projected to average \$34 in CY 2009, \$51 in CY 2010, and \$77 in CY 2011, which would mean regular gasoline at way below \$3.00 per gallon. The much-praised hybrid Toyota Prius was selling for \$5,000 *over* list price and there was a long waiting list in July 2008 when regular gasoline was over \$4.10 per gallon. By December 2008, when regular gasoline was down to \$1.30 to \$1.60 per gallon, the Toyota Prius was selling for \$2,000 *below* list price; and the waiting list had disappeared.

U.S. light vehicle sales are now projected to average 13.1 million units in CY 2008, 10.3 million units in CY 2009, 12.5 million units in CY 2010, and 14.5 million units in



CY 2011. The domestic producers need at least a 14 to 15 million unit sales volume to stay in business.

Oil and energy

In CY 2008, at first there was very bad news about oil and energy prices, then there was very good news. World oil prices started rising from less than \$100 per barrel at the beginning of CY 2008, skyrocketing to \$147 per barrel by July. The sharp spike was much higher than the supply/demand situation would appear to have warranted, but oil prices were driven by speculation and high anticipated demand from emerging economies, especially associated with the needs of the much-publicized summer World Olympics in Beijing, China, in August. Oil prices nosedived once the Olympics and the summer driving season were over, but not before world and especially the U.S. demand for vehicles had been significantly altered. In the U.S., the sales of light vehicles plummeted from 16.1 million units annually in CY 2007 to only 10.1 million units annually by November 2008, and the Big Three domestic auto producers—General Motors, Ford, and Chrysler—were on the verge of collapse. General Motors and Chrysler got temporary government loans to tide them over until the new Obama administration, when they hope to get more permanent assistance.

The financial crisis and the recession were also factors in the fall of energy prices. World oil prices fell below \$40 per barrel in December 2008 and regular gasoline was \$1.30 to \$1.60 per gallon.

Right at the start of CY 2009, hostilities between the Palestinian organization, Hamas, and Israel broke out on the Gaza Strip. The resulting increase in world tensions has boosted regular gasoline prices in the U.S. about \$.20 per gallon. This increase is expected to be temporary.

World oil prices averaged \$100 per barrel in CY 2008 because of price spikes in the first-half of the year. Prices varied from \$147 per barrel in July to less than \$40 per barrel by December. World oil prices are now projected to average \$34 per barrel in CY 2009, \$51 per barrel in CY 2010, and \$77 per barrel in CY 2011. The recession has dropped oil prices for now, but reviving world demand will eventually nudge prices higher. As always, the energy sector can quickly become very volatile.



Forecast Alternatives

The alternative forecasts differ from the baseline in the severity of the recession:

The pessimistic scenario has a long and deep worldwide recession (probability is 20 percent).

In this worst-case scenario, U.S. average GDP drops -3.5 in CY 2009 and only recovers to 0.8 percent growth in CY 2010, and 2.7 percent growth in CY 2011. GDP growth does not get back to the 3.0 percent trendline for nearly a decade. Employment falls for 9 straight quarters, losing over 6 million jobs. The unemployment rate goes to 10 percent and stays over 9 percent through CY 2011. Credit markets remain clogged. In CY 2009, average vehicle sales fall to 8.9 million units, and average new housing starts are off to 0.57 million. Consumer prices fall -3.2 percent in CY 2009, but then rise by 4.7 percent in CY 2011 as the Federal Reserve is afraid to raise the Fed Funds rate in so weak an economy. Productivity advances only 1.4 percent per year over the next decade, and the economy emerges from the downturn in a weakened condition.

The optimistic scenario has monetary and fiscal stimulus working better than expected (probability is 20 percent).

In the best-case scenario, the 0.0 to 0.25 percent Fed Funds rate, the TARP, and President Obama's recovery package work better and faster than anticipated. GDP growth only falls an average -1.5 percent in CY 2009 and is back over the 3 percent trendline by CY 2010. Employment bottoms out in CY 2009, and unemployment only rises to a little over 8 percent. Liquidity returns to the banking system more quickly and housing prices stabilize. Light vehicle sales average 11.6 million in CY 2009 and rise back to 15.9 million units by CY 2011. Housing starts bottom out at a 0.66 million average for CY 2009 and are back to 1.21 million average by CY 2010. Consumer prices fall -1.6 percent in CY 2009, but the Federal Reserve raises the Fed Funds rate as prices recover in CY 2010, and inflation only rises to 2.9 percent. Growth in the technology sector advances productivity to the 2 percent range. The economy is almost fully recovered by CY 2011.



U.S. Forecast Data Summary

(Baseline Forecast Averages)

	Percent (except as noted)			
	CY 2008	CY 2009	CY 2010	CY 2011
Real GDP	1.2	-2.5	2.2	3.2
Personal Income	3.8	0.8	2.5	4.5
Consumer Spending (<i>Real</i>)	0.3	-0.9	2.3	2.3
Business Investment (<i>Real</i>)	1.9	-15.1	-0.3	12.7
Federal Government Spending (<i>Real</i>)	5.7	3.2	-0.7	-2.0
State and Local Government Spending (<i>Real</i>)	1.2	0.4	2.9	0.2
Housing Starts (<i>Million</i>)	0.91	0.60	0.98	1.34
Existing Home Sales (<i>Million</i>)	4.86	4.44	4.52	4.93
Light Vehicle Sales (<i>Million Units</i>)	13.1	10.3	12.5	14.5
Nonagricultural Employment	-0.2	-2.6	0.0	1.6
Unemployment Rate (<i>Levels</i>)	5.8	8.5	9.1	8.5
Consumer Price Inflation	3.8	-2.2	2.4	3.4
Oil Prices (<i>\$ per Barrel</i>)	100	34	51	77
Industrial Production	-1.6	-7.6	1.0	3.5
Federal Government Surplus (<i>Billion Dollars</i>)	-455	-1,349	-987	-837
Current Account Balance (<i>Billion Dollars</i>)	-666	-297	-537	-748
Federal Funds Rate (<i>Levels</i>)	1.93	0.13	0.94	3.34
3-month T-Bill Rate (<i>Levels</i>)	1.39	0.17	1.51	3.74

The baseline forecast has a 60 percent probability.

Virginia Forecast



Our projections show that Virginia still had overall positive job growth in Calendar Year (CY) 2008. The projection is for statewide job growth to average 14,400, or 0.4 percent, this year with nonfarm place-of-work payroll employment increasing from an average 3,760,700 in CY 2007 to an average 3,775,100 for CY 2008. While not as good as the 34,200, or 0.9 percent job gain recorded in Virginia between CY 2006 and CY 2007, Virginia still was adding some jobs this year whereas national job growth had shifted to negative in CY 2008 with the U.S. job *loss* average projected at -0.2 percentage point. Virginia's job growth average was kept positive by still good gains in private education and health care, total government (education and defense), professional and business services, leisure and hospitality, and miscellaneous services. Also, export shipments through Virginia's ports were keeping transportation, warehousing, and utilities employment barely positive. Although mining, information, trade, and finance have now all turned slightly negative, most of the job loss Virginia experienced in CY 2008 was coming from the continuing decline in manufacturing and the contraction in construction (especially residential building).

After averaging 3.0 percent in both CY 2006 and CY 2007, the unemployment rate in Virginia has risen in CY 2008 and is expected to average 4.1 percent. The average number of jobless workers has risen from 123,200 in CY 2007 to a projected 169,000 for CY 2008. The increase resulted mostly from layoffs in motor vehicles, furniture, textiles and building materials in manufacturing, and cutbacks in residential construction. Also, in CY 2008's cautious environment, retail stores seem to have hired fewer temporary and part-time workers.

Virginia's unemployment ranking in comparison with other states has slipped a bit in CY 2008. In CY 2007, Virginia's 3.0 percent average jobless rate was the fourth-lowest in the U.S. with only Hawaii, 2.6 percent, and Idaho and Utah, both 2.7 percent, being lower. In CY 2008, Virginia has usually been averaging in the top dozen-best states with some small Midwest and Rocky Mountain states being lower. Unemployment has increased everywhere, but it has risen less in the middle of the country. As was the case in CY 2006 and CY 2007, Virginia continues in CY 2008 to have the best jobless rate among the 13-largest states with over 3.5 million nonfarm jobs. The U.S. jobless rate has risen from a 4.6 percent average in both CY 2006 and CY 2007 to a projected 5.8 percent average in CY 2008.

Virginia's average labor force and total place-of-residence employment also saw growth in CY 2008. The state's civilian labor force expanded by 76,600, or 1.9 percent, to a projected record 4,130,800; and total employment grew by 30,800, or 0.8 percent, to a projected 3,961,800. Some of this growth was the result of new people being attracted to Virginia from other places because of the still more favorable economic conditions here than in most other populous states.

Caution: All of the figures used here are from the Virginia forecasting model, which was run in late 2008, using as a base the monthly Current Employment Statistics (CES) estimates available for Virginia before benchmarking to the Quarterly Census of Employment and Wages (ES-202 unemployment insurance tax records) in First Quarter 2009. This is done in order to have projections available in time for the planning cycle several months before the benchmarks are available. The past history of benchmarkings in Virginia is that in good

times the CES estimates are usually below the benchmarked figures, and in bad times the CES estimates usually run above the benchmarked figures. This just seems to be the nature of the prescribed U.S. Bureau of Labor Statistics CES estimating procedures. With this said, CY 2008 growth could be less than the projections indicate when the benchmarked data becomes available in Spring 2009.

Nonagricultural employment in Virginia by NAICS* industry sectors in CY 2008

*NOTE: The projections use the North American Industrial Classification System (NAICS) as revised in 2007. The NAICS codes replaced the Standard Industrial Classification (SIC) codes used prior to 2003.

Total nonagricultural place-of-work payroll employment is expected to average 3,775,100 in CY 2008; this represents a 14,400, or 0.4 percentage point increase over CY 2007.

A. Industries with rising employment averages in CY 2008

- ☼ **Private education and health services employment** was the best gainer, adding 11,300 jobs, for a 2.7 percent growth rate to a 428,300 average. Much of this gain came from the health care industry—the medical, nursing home, and social services fields—where there was a combined 10,300, or 3.1 percent, job increase as this industry catered to an aging population. Of course, many health care services are covered by health insurance. Private schools and colleges added 1,000 additional staff in CY 2008. Virginia has a number of centers of private higher education, such as Lynchburg, Richmond, Virginia Beach, Roanoke, and Farmville, that provide educational services to both statewide and national clients.
- ☼ **Total government employment** added 9,000 jobs, or 1.3 percent, to an average of 695,100. Combined state and local government grew 8,800, or 1.7 percent, to 538,300. Most of the additions were in education. In many local jurisdictions, the school system is the largest single employer. At the state level much of the growth was at the state universities, which educate students from across the nation as well as from Virginia. The state universities could be considered an export industry for Virginia, bringing many jobs to localities like Richmond, Charlottesville,

Blacksburg, Radford, Norfolk, Williamsburg, Fredericksburg, and Harrisonburg. Federal government employment, at an average of 156,800, was 200, or 0.1 percent, higher in CY 2008. Federal employment accounts for 4.2 percent of Virginia's nonfarm employment base—double the national average.

- ☼ **Professional and business services**, Virginia's largest private industry employing sector, grew by 6,800 jobs, or 1.1 percent, to an all-time high average of 650,600. The professional and business services growth was concentrated in Northern Virginia, the state's largest metropolitan area, but this industry also saw gains in most of the state's other metropolitan areas. The professional and business services industry was where large numbers of new college graduates found employment in CY 2008. Subsectors where much of this growth took place were computer systems software design, engineering services, scientific and consulting services, and management of companies. Late in the year, there began to be some employment reductions at professional employment service providers, the temporary employment service providers of contract workers.
- ☼ **The leisure and hospitality industry** added 900 jobs, or 0.3 percent, to an average of 346,800. This was a record high for this industry and was especially good, considering the record-high fuel prices in the April-to-July period and the fact that 2008 was the "year after" the 2007 - 400th anniversary Jamestown celebration. Fall foliage travel seemed to get a boost from gasoline prices falling to five-year-low levels by October.



Virginia Forecast

- ✿ **Miscellaneous services employment** was up 2,300, or 1.2 percent, to a 187,300 average. There has been some job growth this year at personal and repair service providers, especially in the largest metropolitan areas. Also, religious and charity organizations have augmented staffs.
- ✿ **Transportation, warehousing, and utilities** added a net 100 jobs, or 0.1 percent, to an 120,000 employment average. The ports had a good year with export gains making up for a reduction in imports. Airlines cut employment late in the year.

B. Industries with declining employment averages in CY 2008

- ✿ **Mine employment** in Virginia was down 400, or 3.6 percent, to a 10,600 average, although the demand for coal remained high. Production problems causing downtime early in the year at Virginia's largest mine lowered the employment average.
- ✿ The **information industry** continued to see weaknesses, mainly due to intense competition in telecommunications, which lowered average employment 800, or 0.9 percent, to a level of 89,900.
- ✿ **Trade employment** was down 2,000, or 0.4 percent, to an average of 545,700. The wholesale trade subsector was still growing by 300 jobs, or 0.2 percent, to a 2008 average of 121,400. The retail subsector turned negative by 2,300 jobs, or 0.5 percent, to an average of 424,300 as consumer confidence waned in the light of real estate and financial concerns.
- ✿ The **finance, insurance, and real estate** sector declined by 2,200 jobs, or 1.1 percent, to a CY 2008 employment average of 192,000 due to reductions in mortgage banking and real estate.
- ✿ **Manufacturing employment** continued what seems to be a long-run decline, falling 5,000 jobs, or 1.8 percent, to an average level of 273,600 in 2008. Durable goods manufacturing dropped 4,100 jobs, or 2.5 percent to an average of 159,900, reflecting the slowdown in the demand for motor vehicles, furniture, and building materials. Nondurable goods lagged by 900 jobs, or 0.8 percent, to an average of 113,700. Textile mill employment, down to an 8,200 average in 2008, was one-fifth the size of its 1970s peak when it was Virginia's largest factory segment.

The increase in export demand for U.S.-made goods kept the Virginia production workweek above 43.0 hours in length for most of the year as producers worked existing employees overtime to fill foreign orders.

- ✿ **Construction employment** fell 5,700, or 2.4 percent, to a 235,100 average, with the losses still being mainly in residential real estate in Northern Virginia. Construction had turned negative in just about all localities, except Virginia Beach-Norfolk-Newport News, Virginia/North Carolina, by year's end; but Virginia does not seem to have the overbuilt problems that states like California, Florida, Nevada, and Arizona have.

Most Virginia metropolitan areas still saw positive job growth in CY 2008.

At least eight of the nine Virginia metropolitan areas for which data is currently published are projected to average positive job growth in CY 2008. Only **Blacksburg-Christiansburg-Radford** is expected to average neutral to negative job growth for CY 2008 because of layoffs in its heavily motor-vehicle-oriented manufacturing sector. Even here by year's end, job growth at the two large state universities in the area, Virginia Tech and Radford, was negating the factory job losses. In CY 2008, job growth in the three-largest metropolitan areas was still running above the 0.4 percent statewide average, but had slowed markedly in **Northern Virginia** and the **Richmond** area because of job losses in construction, finance, and manufacturing. The **Virginia Beach-Norfolk-Newport News, Virginia/North Carolina** metropolitan area continued to grow, supported by its large military and defense infrastructure as is usually the case in slower times. The **Lynchburg** area saw fairly good job growth in CY 2008 because of expansions at its several dominant private colleges. Also, growth at their dominant state university employers benefited the **Harrisonburg** and **Charlottesville** areas as well as the **Richmond** and **Hampton Roads** areas. The **Winchester, Virginia/West Virginia** area still benefits from the spillover of strong services growth from its large **Northern Virginia** neighbor. The **Roanoke** area's main job expansion came from health care. With the nine metropolitan areas showing more job growth than the state as a whole, the rural **balance-of-state** suffered net job losses. Once again rural areas in the upper half of the state performed better than those in the lower half. The **Martinsville** micropolitan area had the highest unemployment.

- Virginia Beach-Norfolk-Newport News, Virginia/North Carolina**, the state's second-largest metropolitan area, has a nonfarm employment base of 790,000. This area, which continued to add jobs right on through the CY 2001 and CY 2002 recession years, in CY 2008 appears to add the most average new jobs (about 2.0 percent, or 16,000), better than the 1.0 percent, or 7,500, job gain in CY 2007. Hampton Roads always performs better than most other areas in slowdown periods because of the large military and defense infrastructure putting a base under employment. The federal government employs 48,000 civilian workers; defense-oriented professional and business services and shipbuilding employ 106,000 and 23,000, respectively; and there are over 90,000 military stationed in the area. The several state and private colleges and a large health care infrastructure also lend stability. The 90,000-job leisure and hospitality industry added a couple thousand jobs even with "the year after Jamestown" and high gasoline prices at peak season. Hampton Roads was one of the few areas in the U.S. to still see positive construction employment in CY 2008. The ports did well on exports, although imports were down, and much of the supplies to support the military efforts in Iraq and Afghanistan are shipped through Hampton Roads port facilities. Slight declines in nondefense manufacturing were the only negative.

Unemployment in Hampton Roads ratcheted up from a 3.2 percent average in CY 2007 to mid-4 percent now—still good enough to keep this area in the top 5 major U.S. metropolitan areas. The military deployments keep unemployment low because with the military enlisted personnel out of the area, they cannot moonlight and compete for jobs in the local trade and service industries.

- Lynchburg** has seen about 2.0 percent, or 2,200, average job growth in CY 2008 to its 112,000 nonfarm employment base. Last year Lynchburg averaged 1.2 percent, or 1,300, jobs added. Much of this growth has been in the several private colleges and universities and their support industries as college enrollment has increased.

The manufacturing sector has lost some employment, and there have been more temporary factory layoffs, which boosted the average **unemployment** rate from 3.4 percent in CY 2007 to a projected mid-4 percent in CY 2008.



- Harrisonburg** continues to be a strong small job market with the anchor James Madison University state government complex and its research and support industries. The area has a stable mix of agricultural products, heavy industry, and a recently added biotech center. Its auto- and foods-centered factory sector had a few problems this year. The area should add over 1,000 jobs to its 66,000 nonfarm base for close to 2.0 percent average job growth. Harrisonburg had little job growth from CY 2006 to CY 2007.

Unemployment is expected to be up from the 2.6 percent CY 2007 average to about 3.5 percent in CY 2008, mainly because of factory and construction layoffs.

- Winchester Virginia/West Virginia** continues to see its economy buoyed by fairly strong service industry growth similar to its large neighbor to the east, Northern Virginia. In the last two decades, the Winchester area has shifted away from its earlier agricultural and manufacturing economic roots to a largely service-based economy. There were some housing-related factory problems this past year. The area should see an average 900 jobs added to its 59,000 nonfarm employment base for about

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1.5 percent job growth, although there were fewer retail jobs at year's end. CY 2007 job growth was an average 0.7 percent, or 400 jobs, because of housing-related layoffs.

Unemployment should rise from a 3.2 percent CY 2007 average to mid-4 percent for CY 2008 because of factory and construction layoffs both in the area and in adjacent counties where some area residents work (Winchester is not a perfect labor market).

- ☛ **Charlottesville's** 103,000 nonfarm employment base continues to be dominated by the large University of Virginia/University Medical Center, which comprise about one-fifth of employment and the support service industries that go along with them. Job growth seems to have slowed from 3.0 percent last year to average about 1.5 percent for CY 2008. Layoffs in construction and manufacturing have been the primary reason for the slowing job growth, but budget problems were slowing state institution growth; and the retail sector hired fewer extra workers at year's end.

Unemployment in this area, which averaged 2.4 percent in CY 2007, should average just over 3 percent in CY 2008.

- ☛ **Northern Virginia** job growth, which led the state in the CY 2003 to CY 2006 period at over 3 percent, averaged 1.2 percent in CY 2007, and now has dropped to just below 1 percent, averaging about 12,000 jobs added to its 1.3 million nonfarm employment base for CY 2008. Its still very strong professional and business services sector is expected to provide close to 90 percent of the increase (over 10,000 jobs). Private education and health care, total government, and miscellaneous services are expected to add about 4,000 jobs each to the local economy. Negatives in Northern Virginia now are job losses of 5,000 in construction (the most impacted Virginia area), 2,000 in trade and transportation, 1,500 jobs each in information and finance, and several hundred in manufacturing.

Northern Virginia **unemployment** averaged 2.3 percent in CY 2007 and is expected to average right at 3 percent for CY 2008. The higher joblessness came from construction, finance, and transportation (airlines). In the national unemployment rankings, Northern Virginia is not treated as separate from

the greater Washington-Arlington-Alexandria, DC/Virginia/Maryland/West Virginia metropolitan area and that larger area was usually the first- or second-best large U.S. metropolitan area in CY 2008.

- ☛ The **Richmond** metropolitan area, which had 1.3 percent average job growth in CY 2007, should see about 0.5 percent average job growth in CY 2008, or 3,000 jobs, added to its 635,000 nonfarm employment base. In CY 2008 the Richmond area has benefited from job increases associated with the on-going expansion of Fort Lee, the opening of one new shopping center and construction of another, and the on-going expansion of recent business arrivals in tobacco and packaging. Its mainstays of public and private higher education and health care continue to expand. The area lost jobs in manufacturing (with Albemarle Chemical Corporation moving its headquarters to Louisiana), finance (the move of Wachovia Securities to St. Louis after a merger), and retail trade.

Unemployment in the Richmond area has moved up from a 3.1 percent CY 2007 average to an expected 4.5 percent average for CY 2008.

- ☛ The **Roanoke** area, which averaged 0.6 percent job growth in CY 2007, should see about the same rate of growth in CY 2008, which should add about 1,000 jobs to its 164,000 nonfarm employment base. Most of the growth in both years was coming from expansions at Carilion Clinic as it endeavors to make Roanoke a "world-class" health care center.

Roanoke area **unemployment** averaged 3.1 percent in CY 2007 and should average about 4 percent for CY 2008.

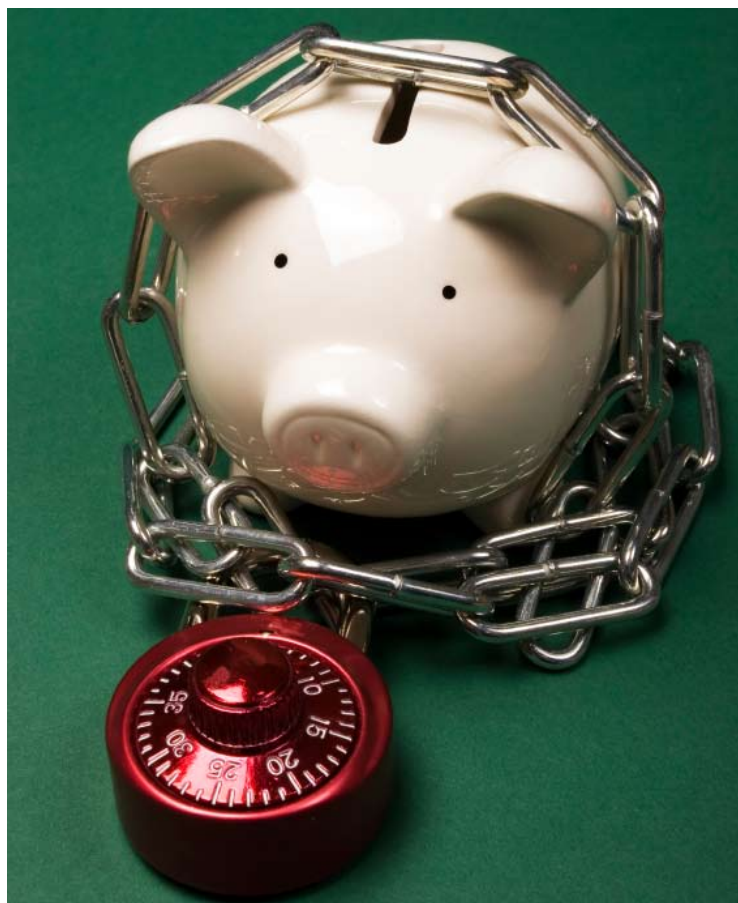
- ☛ The **Blacksburg-Christiansburg-Radford** area, which was down an average 0.7 percent, or 500, in CY 2007, should see about neutral to barely negative job growth for CY 2008. Losses from strikes and layoffs in manufacturing related to motor vehicles early in the year should be nearly canceled out by expansions at the two large state universities (Virginia Tech and Radford) and their support industries late in the year.

Unemployment should rise from a 3.9 percent average in CY 2007 to average mid-5 percent in CY 2008.

With the nine metropolitan areas combined showing an average net 37,600 jobs added and the state as a whole only showing net average job growth of 14,400 jobs, the **non-metro rural balance-of-state** lost an average net 23,200 jobs. As usual, most areas above Interstate 64, as a whole, did better than the rural areas below that highway. Because of federal budget cuts to the statistical programs, Current Employment Statistics data on the **Danville** metropolitan area is no longer available, but it appears the opening of a new furniture factory and service industry expansions provided slight job growth in CY 2008. Danville area unemployment, which averaged 6.3 percent in CY 2007, should average over 7 percent in CY 2008. Of Virginia's three micropolitan areas (defined labor markets smaller than a metropolitan area), **Culpeper County** job growth was unchanged in CY 2008; and unemployment averaged 3.6 percent in CY 2007 and should average 5 percent in CY 2008; **Staunton-Waynesboro-Augusta County** added several hundred jobs in CY 2008 and saw the unemployment average rise from 2.9 percent in CY 2007 to 4 percent in CY 2008; and **Martinsville-Henry County** stayed the same in employment even with a furniture factory closing, but saw the jobless average rise from 6.0 percent in CY 2007 to 9 percent in CY 2008. The Southwest Virginia coal fields again saw unemployment in the 4 to 6 percent range in CY 2008. **Arlington County** with unemployment below 3 percent consistently had the lowest unemployment in Virginia; and **Martinsville city**, which usually had double-digit unemployment, was consistently the highest jurisdiction.

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The National Bureau of Economic Research (NBER), the Princeton, New Jersey, group that officially designates recessions in the U.S., announced on December 1, 2008, that the U.S. economy has already been in recession for 12 months, starting in December 2007. Virginia nonfarm job growth has waned to only 0.4 percent in CY 2008, as explained in the preceding analysis. Virginia was still adding a few jobs in CY 2008 and appeared much better off than the nation as a whole. In CY 2008, the U.S. was in recession while Virginia's economy was still remaining barely positive although growth was slowing. **A word of caution here:** The 2008 averages, used in the *Economic Assumptions* forecast are based on Current Employment Statistics (CES) data for the first half of CY 2008 projected to the full year and *before*



First Quarter 2009 benchmarking to the Quarterly Census of Employment and Wages (formerly called the ES-202 unemployment insurance tax records). Although the CES staff, as of this writing, believes revisions this year will be small, the reader should be aware of historical patterns. The CES has historically in Virginia (because of the way the sample is mandated by BLS, relying on older, established employers), underestimated nonfarm employment in good years and overestimated nonfarm employment in poor years. It is possible CY 2008 nonfarm job levels may be lower than stated in this publication when revisions are made in First Quarter 2009. (If that proves to be the case, projected change going forward should be of the same magnitude even if CY 2008 base levels change slightly with the upcoming 2009 revisions.)

The Virginia economy likely will fall into recession by the start of CY 2009 and have about four quarters of negative job growth. Nonfarm employment totals should not recover to pre-downturn levels until about Third Quarter CY 2010. The Virginia economy will be pulled down by the problems stemming from the national housing and financial crises and the lack of liquidity in the national banking system. Virginia should shed about 23,000 jobs, raising the unemployment average to 5.1 percent for CY 2010. Individual months may spike just over 6.0 percent. (Remember, employment and unemployment are lagging economic indicators, being the

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last to turn around at both ends of the business cycle.) As usual, Virginia should see a less severe downturn than the nation because:

1. Federal government-related employment (civilian, military, and defense and civilian contracting) are a bigger part of Virginia's economy proportionately than in any other state. Federal payrolls may be beefed-up to administer the economic recovery and the public works stimulative programs. The conflicts in Iraq and Afghanistan are likely to still continue through much of the forecast period, and much of the supplies to these military efforts is shipped through Hampton Roads ports.
2. Much of professional and business services and information employment in Virginia is to support and contract with the federal government. Professional and business services is now Virginia's largest private employment sector (650,600) and is less recession-prone than some other industries, although we do expect some job losses here.
3. Health care, with major centers in Richmond, Hampton Roads, Roanoke, and Charlottesville and minor centers in other places, is usually the most recession-proof industry.
4. Higher education, both the state universities and private colleges, are an *export* industry for Virginia, training students from many other places in both the U.S. and the world. The state universities have many funding sources, such as tuitions, research grants, endowments, alumni, and user and athletic fees, other than the state general fund budget. While some of these funds may be hurt by the downturn, probably not all of them will dry up. In recessions, many people go back to college.
5. Virginia does not have big blocks of employment in the nationally troubled financial institutions. Even the failed Wachovia—now Wells Fargo—has most of its Virginia employment in bank branches to serve the public, which are likely to be kept open.
6. Virginia tourism always benefits from its proximity to the populous Northeast and Great Lakes states, and the now cheaper gasoline prices may permit more short trips to Virginia attractions.
7. Factory employment in Virginia is now only about 270,000, or 7 percent, of employment. Nearly

10 percent of Virginia factory employment is in government-supported shipbuilding. The big-three domestic automakers have little direct employment in Virginia. This state saw growth in auto component manufacturers in the past decade, one of the few benefits of the North American Free Trade Agreement (NAFTA), but much of this production goes to vehicles assembled in Mexico by the world's automakers, or for after-market replacement parts.

Virginia is expected to have average unemployment rates over 5 percent in both CY 2009 and CY 2010 with some individual months probably spiking over 6 percent. This should also be a longer-than-usual downturn in Virginia. Still, Virginia is expected to remain in the dozen-best states for unemployment and should continue to have the lowest unemployment rate of thirteen-largest states.

Nonagricultural employment* in Virginia is forecast to turn negative from the 14,400 jobs, or 0.4 percent, job growth average to 3,775,100 projected for CY 2008, losing 22,700 jobs, or 0.6 percent, to 3,752,400 in CY 2009. By CY 2010, job growth in Virginia is expected to return to a positive average, adding 28,500 jobs, or 0.8 percent, to 3,780,900. CY 2011 should see growth of 60,600 jobs, or 1.6 percent, to a nonfarm average of 3,841,500 as things begin to return to normal.

*NOTE: Detail may not add to totals due to rounding.

Private education and health care services should see the best job growth of any industry in the forecast period. This industry continued to see job growth through both the 1990-91 and the 2001-02 recession periods. Projected job growth is 14,900, or 3.5 percent, to 443,300 in CY 2009; 11,800, or 2.7 percent, to 455,100 in CY 2010; and 8,900, or 2.0 percent, to 463,900 in CY 2011. Health care, social services, and nursing facilities will expand to meet the needs of an affluent, aging population. Advances in technology today cause the public to expect and demand so much more in the way of health services. These demands will expand even more as health insurance coverage grows. Private education will be expanding gradually with the growing population. The major health care and education facilities located in centers throughout the state use the latest equipment and technologies to serve not only the Old Dominion, but a big portion of the upper South. Paramount to these projections is Carilion Clinic's on-going plan to make the Roanoke area into a world-class health care center similar to the Mayo Clinic.



Total government employment, Virginia's largest single employment sector, should see some job growth in CY 2009 with gains of 700, or 0.1 percent, to 695,800. CY 2010 will be a negative year with 2,000 jobs, or 0.3 percent, lost to 693,800 because of budgets reduced by falling tax revenues. CY 2011 should be barely positive with 200 jobs added (0.0 percent) to 694,000. Federal civilian government employment should add 600 jobs, or 0.4 percent, to 157,400 in CY 2009, and 1,400 jobs, or 0.9 percent, to 158,900 in CY 2010. With a hopeful winding down of hostilities in Iraq and Afghanistan, CY 2011 should see a drop of 1,800 jobs, or 1.1 percent, to 157,100. Base Closure and Realignment Commission (BRAC) recommendations cause a reshuffling of some Virginia federal personnel. Generally, the BRAC recommendations cause staff reductions in Hampton Roads and Northern Virginia (much of the Northern Virginia change is moving personnel out of unsecured rented quarters to government posts), but big gains in the Richmond area (expansion of Fort Lee). Combined state and local government employment will expand by only 100 jobs (0.0 percent) in CY 2009, to 538,400, and then drop 3,500 jobs, or 0.6 percent, to 535,000 in CY 2010. The loss of tax revenues will be a problem in both years as state and local government agencies, unlike the federal government, cannot run a budget deficit. CY 2011 should see a better funding situation and 2,000 jobs, or 0.4 percent, added to employment of 537,000. Higher education is an "export industry" in Virginia, and state colleges have other means of revenue other than the state general fund

budget, such as tuition fees, research grants, user and athletic fees, and alumni support, although some of these additional funding sources may be hurt by the financial crises. Virginia state colleges make up about 90,000 of the 150,000 state employment total. There likely will be federal stimulus grants to both state and local governments.

Other, or miscellaneous services should see relatively little job loss before turning back barely positive. Job levels will be off 100 (0.0 percent) to 187,200 in CY 2009. Employment should be essentially unchanged in CY 2010 and then add 600 jobs, or 0.3 percent, to 187,800 in CY 2011. These traditional service providers, like barber shops, beauty parlors, and other personal services, repair shops, and nonprofit and charity organizations (subgroups that originally made up services under the SIC codes) should move with the changing economy. Charities may see fewer donations as consumers cope with falling home and investment equity.

Natural Resources and mining should see only minor changes in the forecast period. Employment may be down 300, or 3.1 percent, to 10,300 in CY 2009 due to lower oil prices and industry production dislocations. Job additions of 200, or 2.3 percent, to 10,500 in CY 2010 and 400, or 3.5 percent, to 10,900 in CY 2011 are expected. This industry is expected to follow energy markets. On the plus side, utilities use more coal when oil prices are up and the mines are having to recruit replacements for an aging workforce. On the downside, Virginia coal seams are becoming more difficult to extract economically, and there is stiff competition from newer mines in the western states.

Finance, Insurance, and real estate should see further losses of 900 jobs, or 0.5 percent, mostly in real estate and insurance, to 191,100 in CY 2009. Many commercial leases are being renegotiated lower when they come up for renewal. The housing market bottoms out in CY 2009; and there is growth of 2,000 jobs, or 1.0 percent, to 193,100 in CY 2010 and 4,500 jobs, or 2.3 percent, to 197,600 in CY 2011. Virginia benefits now from having few nationwide bank headquarters or troubled investment houses located in the state. Also, Virginia's surplus real estate properties appear less than in many other states. Virginia-based Capital One Financial appears to be going to benefit from the national bank bailout although it is one of the stronger financial corporations.

Transportation, warehousing, and utilities will see a downturn of 1,100 jobs, or 0.9 percent, to 118,900 in CY 2009 mainly because of less merchandise shipped and fewer people flying. After that, this industry should add 700 jobs, or 0.6 percent, to 119,600 in CY 2010 and 1,100 jobs, or

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1.0 percent, to 120,700 in CY 2011 as the pace of commerce picks up. The airlines should benefit from lower fuel prices and streamlined security procedures. Electric utilities need to increase capacity to meet the ever-growing energy demands. Energy costs are a concern to all subsectors of the transportation and utilities industry.

The **Leisure and hospitality industry** should see job losses of 1,500 jobs, or 0.4 percent, to 345,300 in CY 2009 at the height of the downturn. After that, job growth should return with 800 jobs, or 0.2 percent, to 346,100 in CY 2010 and 3,700 jobs, or 1.1 percent, to 349,800 in CY 2011. Virginia's proximity to the populous Northeast and Great Lake states always helps as do more moderate gasoline prices. Virginia benefits from people taking shorter vacations closer to home.

The **information industry** should see losses of 3,400 jobs, or 3.8 percent, to 86,500 in CY 2009 and 2,300 jobs, or 2.6 percent, to 84,200 in CY 2010, mainly because of continued intense cell phone competition in a softening market. For CY 2011, growth returns with 600 jobs, or 0.7 percent, added for a total of 84,800.

The **trade sector** should see a loss of 2,300 jobs, or 0.4 percent, to 543,400 in CY 2009 as consumer spending bottoms out. The job losses will be at small, marginal independent retailers, building supply firms, car dealers, and the Virginia outlets of some bankrupt national chains. Consumers resume spending for the last two years of the forecast with gains of 9,000 jobs, or 1.7 percent, to 552,400 in CY 2010 and 1,100 jobs, or 0.2 percent, to 553,600 in CY 2011.

Professional and business services, Virginia's largest private employing sector with a 650,600 job average projected for CY 2008, is expected to see a decline of 4,900 jobs, or 0.8 percent, to 645,800 jobs in CY 2009. The job loss in Virginia's normally fastest-growing sector will be at architectural and engineering firms, because of the building slump, and at professional employment service providers, due to less demand for temporary service workers during the downturn. Professional and business services returns to positive employment levels by CY 2010 and once again provides the largest number of new jobs. This sector is expected to add 17,600 jobs, or 2.7 percent, to a level of 663,400 by CY 2010 and 31,500 jobs, or 4.7 percent, to 694,900 by 2011. The demand is expected to remain strong for computer software writers, accountants, and legal professionals.

The **manufacturing sector** is expected to lose employment through 2010 before durable goods turn it slightly positive in CY 2011. Factories will lose 11,300 jobs, or 4.1 percent, to 262,200 in CY 2009 and 5,900 jobs, or 2.2 percent, to 256,400 in CY 2011. Durable goods gains will pull manufacturing back positive by 3,900 jobs, or 1.5 percent, to 260,200 by CY 2011. Durable goods will be down 7,100, or 4.4 percent, to 152,800 in CY 2009 and 3,800, or 2.5 percent, to 149,000 in CY 2010. These losses will be in motor vehicles and vehicle parts, building materials, and furniture. A reviving economy and new shipbuilding contracts in CY 2011 will cause durables to add 4,100 jobs, or 2.7 percent, to 153,100. Nondurable goods are expected to drop 4,200, or 3.7 percent, to 109,400 in CY 2009; 2,100, or 1.9 percent, to 107,400 in CY 2010; and 200, or 0.2 percent, to 107,200 by CY 2011. Textile mills, once Virginia's largest factory employer with over 40,000 jobs in the 1970s, are expected to fall from 8,200 jobs in CY 2008 to 6,600 jobs by CY 2011, a further decrease of 1,600 jobs, or 19.5 percent, as foreign competition continues to take its toll. Other nondurables will see losses in CY 2009 and CY 2010 in rubber, plastics, and chemicals.

Construction employment, which to a large measure is responsible for the downward trends in other industries, is expected to see the biggest job losses in the forecast period. Construction employment should be down by 12,600 jobs, or 5.4 percent, to 222,500 in CY 2010 and 3,400 jobs, or 1.5 percent, to bottom out at 219,000 jobs in CY 2010. Revival will begin in CY 2011 with 4,100 jobs, or 1.9 percent, added back to employment of 223,100. Residential building has been the biggest offender because of the mortgage/credit situation. Virginia's worst problems have been largely in Northern Virginia, but most other areas have seen declines also. Still, Virginia is not nearly as overbuilt as states like California, Florida, Nevada, and Arizona and should be making a comeback by CY 2011. Commercial construction, which held up well in Virginia in CY 2007 and CY 2008, should be down for much of the forecast period, but stimulus road and public works projects paid for by the federal government may help. Construction associated with the expansions of military bases also should help Virginia.

Labor force data (place of residence)

Labor force expansion both from natural growth and from in-migration, because of Virginia's relatively low unemployment rate compared to much of the rest of the country that is attracting new people here, should average 47,000, or 1.1 percent, to 4,177,800 in CY 2009; 29,800, or 0.7 percent, to 4,207,600 in CY 2010; and 44,700, or 1.1 percent, to 4,252,300 in CY 2011. **Total employment averages**

(which also includes agricultural, self-employed, and domestic household workers) are projected to increase 7,300, or 0.2 percent, to 3,969,100 in CY 2009; 23,400, or 0.6 percent, to 3,992,400 in CY 2010; and 52,200, or 1.3 percent, to 4,044,600 in CY 2011 (Note: place of residence employment never goes negative in Virginia in the forecast). The level of unemployed and the unemployment rate, however, will rise through CY 2010. The number of average unemployed should rise 39,700 to 208,700 in CY 2009 and 6,500 to 215,200 in CY 2010. (Unemployment is usually highest at the end of the downturn.) By CY 2011, the number of unemployed should recede 7,600 to 207,600. The unemployment rate is expected to go from a projected 4.1 percent average in CY 2008 to average 5.0 percent in CY 2009, and 5.1 percent in CY 2010, before receding to a 4.9 percent average in CY 2011. Unemployment may spike to over 6.0 percent in individual months, especially in first quarters 2010 and 2011. The Virginia unemployment rate should keep its historic relationship of being 65 to 75 percent of the national jobless rate.

Regional forecasts

Virginia Beach-Norfolk-Newport News, Virginia/North Carolina was the best performing large Virginia metropolitan area in CY 2008, although there is a possibility of some downward revision to these figures. This region contains about one quarter of the state's employment. The area should see barely positive job growth for much of the forecast period with a slightly stronger performance by CY 2011. Like in the 2001 - 2002 downturn, where revised data showed Hampton Roads employment never went negative, the forecast is for employment to remain slightly

positive. Hampton Roads usually performs better than most other areas in downturns. With the military actions in Iraq and Afghanistan expected to continue through much of the forecast period, the deployments, the military support, and defense contracting activities should be maintained. Support of the military puts a floor under business services, information, and manufacturing. Supplies to engagement areas flow through the ports of Hampton Roads. Unless other budget priorities get in the way, the Navy plans the start of a long-range modernization by CY 2011. Any BRAC downsizing would likely be balanced out by other military activities. Hampton Roads has several large health care and education centers, which should not see much adverse impact from the weak economy. Cheaper gasoline and the nearness to the populous Northeast and Great Lakes regions should continue to bode well for Hampton Roads tourist attractions. Any big change at Oceana Naval Air Station, or the movement of a nuclear carrier out of the area, would be unlikely to take place during the forecast period.

Unemployment in this region should remain close to the state average, probably not going higher than the 5 percent range. The deployments keep unemployment down, because when the enlisted military are out of the area, they cannot compete for moonlighting jobs in the local economy. Hampton Roads should stay in the half-dozen best large metropolitan areas for unemployment.

Northern Virginia is Virginia's largest metropolitan area, representing about 35 percent of statewide employment. Recent losses of a net 10,000 jobs have taken place in construction, real estate, finance, air transportation, telecommunications, and retail trade. These losses may have already run their course. The greater Washington area almost always perks up economically when there is a national change of administration. There are stories of developers assembling land now to be ready for the next wave of expansion. There are still job losses likely to come in commercial construction, which previously had held up well, and in the architectural, engineering, and temporary employment service portions of professional and business services. The defense contracting portion of professional and business services and the defense-related portion of federal civilian employment should remain strong as should the sizable health care industry. Facilities will have to be built on military bases to house the defense workers being moved out of rented space for security reasons and there is expansion at the Quantico Marine base. Northern Virginia also benefits from tourism from the Northeast and Great Lake states. Northern Virginia



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employment growth should remain barely positive, or only go negative for a brief period.

Unemployment should stay well below 5 percent overall, and Northern Virginia should continue to have about the lowest jobless rate of any major area in the nation. Closer in jurisdictions should see a little lower unemployment rates than the outer jurisdictions.

Richmond area job growth had turned barely negative by the end of CY 2008 and should be negative by -0.5 percent to -1.0 percent in the first year of the forecast period. After that, job growth should gradually return to positive. Hurting the region are layoffs at the one-decade-old high-tech computer chip maker, Qimonda, and Reynolds Wrap, big troubles at several area-based national finance and insurance companies, and bankruptcy of the area headquartered Circuit City national electronics retailer. The area has been losing factory jobs for years and that trend is likely to continue. State government, the largest single employer, is certain to see budget cut layoffs. On the positive side, the area remains a center for health care and public and private higher education, which together should see slight employment gains. One new shopping center opened near the Richmond airport at the end of CY 2008, and another on 288 in Chesterfield County should be complete in CY 2009. A downside to this is the Richmond area is probably already overbuilt in retail space, and some of the employment at the new centers may come at the expense of older malls. Phillip Morris is scheduled to move a sizable tobacco manufacturing operation to the Richmond area from Concord, North Carolina, to consolidate production by CY 2010. Probably the biggest plus for the region is that the ongoing federal project to more than double the size of operations at Fort Lee will last throughout the forecast period. This massive project will require much construction and support infrastructure and is

taking place in what for the last two decades has been the economically weaker part of the Richmond region. Prince George County near Petersburg is also getting a new Rolls Royce jet engine manufacturing facility.

Overall **unemployment** in the Richmond area should average in the 5 to 6 percent range.

The **Harrisonburg** area should see slightly positive overall job growth, spearheaded as usual by the large James Madison state university and the research and development and support industries that go along with it. Also, there is some movement to the area by technology industries from Northern Virginia. Area manufacturing is a balanced mix of agricultural and industrial interests, but it is now slightly vulnerable to a prolonged sales slump at the domestic automakers.

Unemployment should generally remain well below 5 percent.

The **Winchester, Virginia/West Virginia** area should see neutral to slightly negative job growth in the forecast period. The area should benefit from the large amount of service-industry employment in the region and perhaps some spillover employment from the change of administration in nearby Washington, D.C. Area manufacturing continues to have vulnerability from problems in the national construction and vehicle industries.

Unemployment rates may move to the 5 to 6 percent range because of building and vehicle-related layoffs both in the region and in neighboring areas. (This area is not a perfect labor market area with some residents working in neighboring areas.)

The **Charlottesville** area benefits from its largest employer, the University of Virginia and the University Medical Center, which together provide about one-fifth of the region's employment, and from the research and development, health care, and support industries that go along with the university and hospital. By CY 2010, the federal Joint Use Intelligence Analysis Facility will move from Washington, D.C., and Northern Virginia to northern Albemarle County, joining other federal facilities already in the region. This move is another benefit of BRAC. While the arrival of 1,100 more high-paying jobs to the region will boost the local economy, most workers will come with the federal agency. Area tourism should continue to be positive. There may be more job losses in the area's shrinking factory sector. Job growth may range between 1.0 percent positive and 1.0 percent negative.





Unemployment should be in the 4 to 5 percent range.

The **Lynchburg** area should continue to benefit from expansion at the region's several private colleges of which Liberty University is the largest. The private colleges continue to increase enrollments. As in Virginia's other college areas, there is a large and growing contingent of trade and service employment to support the faculties and student bodies. Areva NP, a leading designer of nuclear power plants worldwide, with North American headquarters in Lynchburg, plans to hire at least 500 engineers over the forecast period, and Babcock and Wilcox is expanding its workforce because of increased demand for heavy forgings for nuclear power plants. The area could see more losses in textile and apparel plant employment. Overall job growth may remain barely positive.

Unemployment likely will be in the low- to mid-5 percent range.

The **Blacksburg-Christiansburg-Radford** area benefits significantly from Virginia Tech and Radford, the two large state universities, and their support employment, but the area's significant vehicle manufacturing and component industries now face more problems. Look for neutral to slightly negative job growth during the forecast period.

Unemployment will probably be 5 to 6 percent because of potential vehicle-related layoffs.

The **Roanoke** area recently had been one of Virginia's more stable areas. Most job growth is likely to continue to come from the health care industry, but there may be some factory furloughs.

Unemployment will be in the 4 to 5 percent range.

The **Danville** area has recently gained in services and education employment, which make it slightly less vulnerable

in downturns, but because of the still large factory sector, there probably will be inventory control layoffs that will turn employment negative.

Unemployment should be 8 to 9 percent, higher than any other metropolitan area.

The nonmetropolitan **Balance of State** should, unfortunately, see a good bit of the state's rise in unemployment in this recession because of its still dominant factory employers. As usual, the upper-half of the state (above I-64) will have fewer problems than the lower-half with factory domination being the controlling factor. The large and generally prosperous Northern Virginia metropolitan area now exerts some influence over the entire upper part of Virginia, including the **Eastern Shore**. The **Middle Peninsula** and **Northern Neck** could see job growth as their economies attract in new people and become more service-oriented. Unemployment will still be seasonal, but over time should become less so. The **Staunton-Waynesboro** and **Culpeper** micropolitan areas will generally be prosperous, but factory layoffs may carry unemployment to the 5 to 6 percent range. The **Lexington-Buena Vista** and **Alleghany-Covington** areas will probably see factory furloughs push unemployment to 6 percent or above. The far **Southwest Virginia** coalfield areas should benefit from the nation's energy needs and the replacement of an aging mine workforce and see generally less than 6 percent unemployment. Virginia's highest unemployment is likely to continue to be in areas along the North Carolina border like **Emporia**, **South Boston**, **Galax**, and especially the **Martinsville** micropolitan area where dominant textile, apparel, and furniture employment will keep joblessness in the 7 to 10 percent range. Some layoffs in textiles and apparel in neighboring North Carolina may help to drive up unemployment in these border areas.

Program Year Forecast

The state's civilian labor force should grow by 30,500, or 0.7 percent, in Program Year* (PY) 2009 to 4,191,500 and increase by 36,900, or 0.9 percent, to average 4,228,300 in PY 2010.

Total employment, on a place-of-residence basis will increase 10,100, or 0.3 percent, to an average of 3,976,200 individuals in PY 2009. In PY 2010, the total employment gain will be 39,500 individuals, or 1.0 percent, for an average of 4,015,600.

Unemployment, expressed in the number of jobless workers, is expected to increase 20,500 to average 215,300 in PY 2009, but then contract 2,600 to average 212,700 in PY 2010. PY 2009 has the brunt of the downturn while things should be starting to improve by PY 2010.

The calendar year **unemployment rate** averages will rise from 4.1 percent in CY 2008 to 5.0 percent in CY 2009, and 5.1 percent in CY 2010. By CY 2011, unemployment should be improving to average 4.9 percent as job growth resumes. Unemployment rates often lag about a year behind the downturn. On a program year basis, the jobless rate should be 4.7 percent for PY 2008, 5.1 percent for PY 2009, and 5.0 percent for PY 2010.

Nonagricultural employment** in PY 2009 on a place-of-work, job count basis should contract 6,800, or 0.2 percent, to average 3,759,200 jobs.

Nonmanufacturing employment overall should remain barely positive by 4,800 jobs, or 0.1 percent, to an average of 3,501,600. The almost recession-proof private education and health services sector will be largely responsible for keeping the nonmanufacturing industries positive during the height of the downturn. Private education and health services will increase by 13,000 jobs, or 3.0 percent, to an average 449,400 for PY 2009. Trade employment will overall add 5,000 jobs for a 0.9 percent gain to its average of 548,300. Consumer spending should revive enough late in the period to make this happen although wholesale trade will still be negative by 500 jobs, or 0.4 percent. Professional and business services is expected to remain slightly positive on a program year basis with net gains of 3,000 jobs, or 0.5 percent, to average 651,200 although architects, engineers, and temp services will see losses. Gains in computer systems design, accounting, legal

services, and management of companies should be enough to keep this largest employing sector net positive. The finance sector will have recovered enough to add 800 jobs, or 0.4 percent, to average 191,800. This is mainly due to Virginia not having big blocks of employment from the nation's most troubled financial employers. Leisure and hospitality will see just enough more travelers to keep its employment average of 345,600 barely positive by 300 jobs, or 0.1 percent. The remaining nonfactory employers will lose employment in PY 2009. Mine employment will be minimally negative by 100 jobs, or 0.9 percent, to average 10,300. Transportation, warehousing, and utilities will also be just a little off by 200 jobs, or 0.2 percent, to average 119,100. Miscellaneous services will contract 700 jobs, or 0.4 percent, to average 186,900. Total government employment will lose 2,600 jobs, or 0.4 percent, all in state and local government because of reduced tax revenues and budget cuts. Combined state and local employment falls 4,200 jobs, or 0.8 percent, to average 535,900. Federal government civilian employment will expand 1,600 jobs, or 1.0 percent, to average 158,800 because of on-going defense activities and expansions at military posts. Intense competition in the phone industry will reduce information by 3,600 jobs, or 4.1 percent, to average 85,000. The biggest job loss will be in construction (-10,100, or -4.4 percent) as commercial construction joins bottoming-out residential construction for a combined employment average of 219,300.

Manufacturing will be what drags nonfarm employment negative in PY 2009, being down 11,600 jobs, or 4.3 percent, to a 257,500 average. All subsector are expected to be negative. Durable goods will contract 8,100, or 5.1 percent, to average 149,500. Virginia now has little employment directly linked to the big-three domestic automakers, and most shipbuilding activities are tied to defense. Nondurable goods should drop 3,500 jobs, or 3.2 percent, to average 108,000. Soft goods producers should continue to exit the United States.

Nonagricultural employment** in PY 2010 should rebound by 49,200 jobs, or 1.3 percent, to average 3,808,300.



Nonmanufacturing employment should now add 48,900 jobs, or 1.4 percent, to average 3,550,600 with all major sectors now positive except total government and information. Professional and business services, the largest private employing sector, should grow by 27,400 jobs, or 4.2 percent, to average 678,700. The high-tech portion of this industry is already preparing for the next wave of expansion. Private education and health services will add the next most jobs, being up 10,300, or 2.3 percent, to average 459,700. The trade sector should add 5,500 jobs, or 1.0 percent, to average 553,800. The renewed expansion should provide 3,400 jobs, or 1.8 percent, to average 195,300 in finance; 2,000 jobs, or 0.6 percent, to average 347,600 in leisure and hospitality; 1,100 jobs, or 0.9 percent, to average 120,200 in transportation, warehousing, and utilities; and 500 jobs, or 0.3 percent, to average 187,400 in miscellaneous services. Construction should finally revive by 500 jobs, or 0.2 percent, to average 219,900. Mine employment should add 400 jobs, or 4.2 percent, to an average of 10,800. Stiff competition should still cost 800 jobs, or 0.9 percent, in information with an average of 84,200. Total government employment should be down 1,600 jobs, or 0.2 percent, to average 693,100. A winding down of war efforts should reduce federal civilian employment 1,400, or 0.9 percent, to average 157,400. As a

result of reduced tax revenues in previous periods, state and local combined employment should be off 200 (no percent change) to average 535,700.

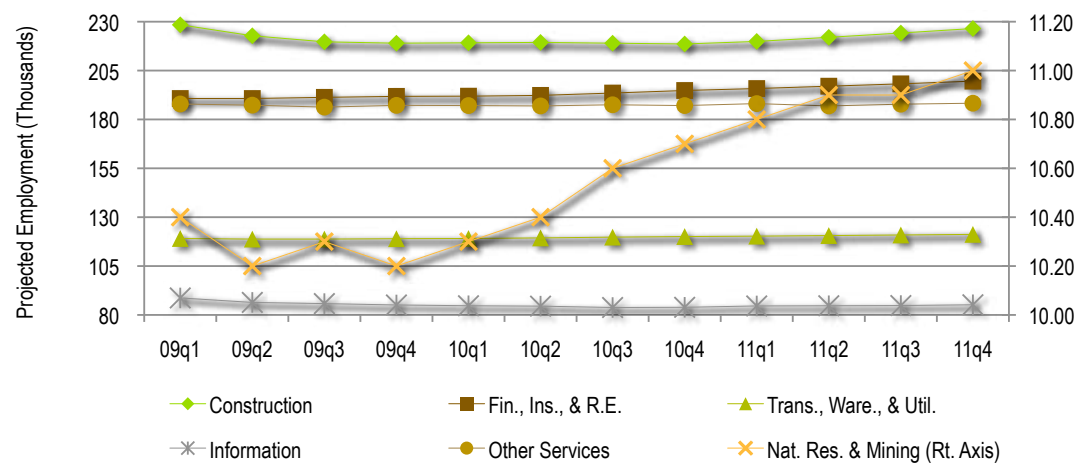
Even **manufacturing** employment turns barely positive by PY 2010. Factory forces are expected to add 200 jobs, or 0.1 percent, to average 257,800. Durable goods will be positive by 1,100, or 0.7 percent, to average 150,600. Both transportation equipment and furniture will add back a few workers. Nondurable goods continue to slide, being down 900, or 0.8 percent, to an average of 107,100. Textile employment is down to only 6,700 jobs.

***Note:** The various federally funded programs are on the Program Year cycle that runs from July 1 to June 30. For example, PY 2009 runs from July 1, 2009, to June 30, 2010.

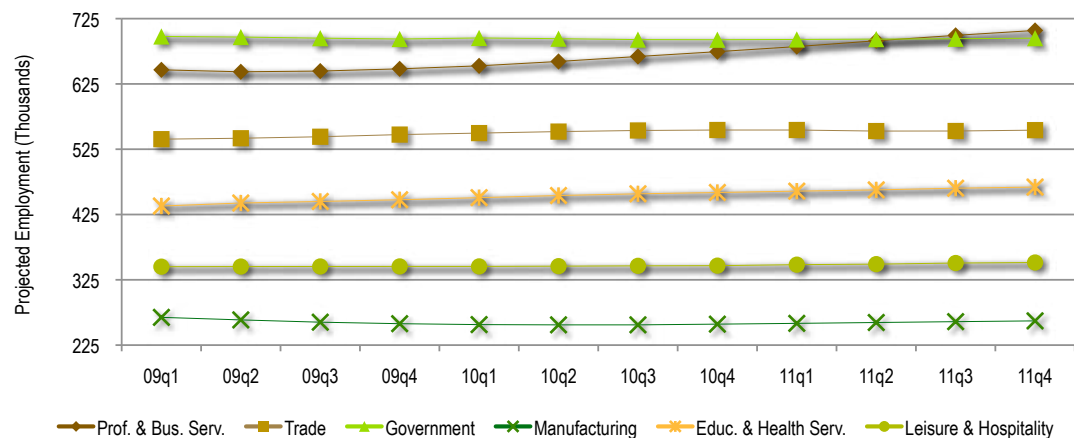
****Note:** Details may not add to totals due to rounding.

Graphs and Tables

Virginia Employment - Major Industries, 2009 - 2011
Graph 1A



Virginia Employment - Major Industries, 2009 - 2011
Graph 1B



Unemployment Rates - Virginia and United States, 2009 - 2011
Graph 2

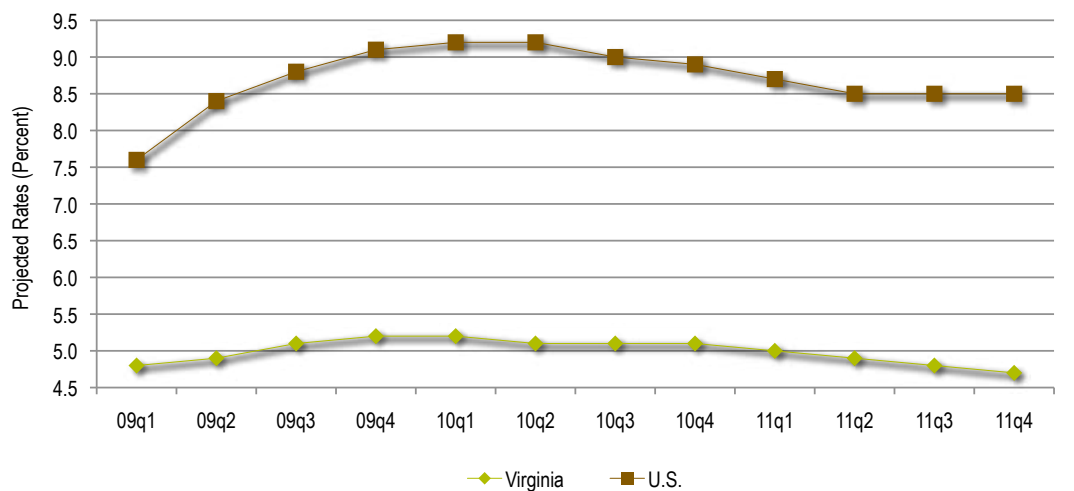


Table 1 - Virginia Labor Force and Employment Projections - Calendar Year
(Numbers in Thousands)

					CY 2008 to CY 2009		CY 2009 to CY 2010		CY 2010 to CY 2011	
Subject	CY 2008*	CY 2009	CY 2010	CY 2011	Change	% Change	Change	% Change	Change	% Change
Labor Force Data (Place of Residence)										
Labor Force	4130.8	4177.8	4207.6	4252.3	47.0	1.1	29.8	0.7	44.7	1.1
Resident Employment	3961.8	3969.1	3992.4	4044.6	7.3	0.2	23.4	0.6	52.2	1.3
Unemployed	169.0	208.7	215.2	207.6	39.7	23.5	6.5	3.1	-7.6	-3.5
Unemployment Rate (%)	4.1	5.0	5.1	4.9	0.9	-	0.1	-	-0.2	-
Establishment Data (Place of Work)										
Total Nonag. Wage & Salary	3775.1	3752.4	3780.9	3841.5	-22.7	-0.6	28.5	0.8	60.6	1.6
Total Manufacturing	273.6	262.2	256.4	260.2	-11.3	-4.1	-5.9	-2.2	3.9	1.5
Durables	159.9	152.8	149.0	153.1	-7.1	-4.4	-3.8	-2.5	4.1	2.7
Transportation Equipment	35.7	34.2	34.2	35.5	-1.5	-4.1	0.0	-0.1	1.3	3.7
Furniture and Related Products	17.5	16.8	16.4	16.8	-0.7	-4.2	-0.4	-2.4	0.4	2.6
Other Durables	106.7	101.8	98.4	100.8	-4.9	-4.6	-3.4	-3.3	2.4	2.4
Nondurables	113.7	109.4	107.4	107.2	-4.2	-3.7	-2.1	-1.9	-0.2	-0.2
Textile Mills	8.2	7.4	6.9	6.6	-0.9	-10.5	-0.5	-6.5	-0.3	-4.3
Other Nondurables	105.5	102.1	100.5	100.6	-3.4	-3.2	-1.6	-1.6	0.1	0.1
Total Nonmanufacturing	3501.5	3490.1	3524.5	3581.3	-11.4	-0.3	34.4	1.0	56.7	1.6
Natural Resources & Mining	10.6	10.3	10.5	10.9	-0.3	-3.1	0.2	2.3	0.4	3.5
Construction	235.1	222.5	219.0	223.1	-12.6	-5.4	-3.4	-1.5	4.1	1.9
Trade	545.7	543.4	552.4	553.6	-2.3	-0.4	9.0	1.7	1.1	0.2
Wholesale Trade	121.4	120.2	120.9	122.4	-1.2	-1.0	0.7	0.6	1.5	1.2
Retail Trade	424.3	423.2	431.5	431.2	-1.1	-0.3	8.4	2.0	-0.3	-0.1
Transportation, Warehousing, and Utilities	120.0	118.9	119.6	120.7	-1.1	-0.9	0.7	0.6	1.1	1.0
Information	89.9	86.5	84.2	84.8	-3.4	-3.8	-2.3	-2.6	0.6	0.7
Finance, Insurance, and Real Estate	192.0	191.1	193.1	197.6	-0.9	-0.5	2.0	1.0	4.5	2.3
Professional and Business Services	650.6	645.8	663.4	694.9	-4.9	-0.8	17.6	2.7	31.5	4.7
Prof., Scientific, and Technical Services	363.5	366.3	372.3	385.7	2.8	0.8	6.1	1.7	13.4	3.6
Mgmt. of Companies and Enterprises	77.5	77.9	78.5	79.4	0.4	0.6	0.5	0.7	1.0	1.2
Adm. and Support and Waste Mgmt.	209.6	201.5	212.6	229.7	-8.1	-3.9	11.0	5.5	17.1	8.1
Educational and Health Services	428.3	443.3	455.1	463.9	14.9	3.5	11.8	2.7	8.9	2.0
Educational Services	82.0	85.3	86.4	87.9	3.3	4.0	1.2	1.3	1.5	1.7
Health Care and Social Assistance	346.3	358.0	368.6	376.0	11.7	3.4	10.6	3.0	7.4	2.0
Leisure and Hospitality	346.8	345.3	346.1	349.8	-1.5	-0.4	0.8	0.2	3.7	1.1
Arts, Entertainment, and Recreation	47.3	47.7	48.1	48.7	0.4	0.9	0.5	1.0	0.6	1.2
Accommodation and Food Services	299.6	297.7	298.0	301.1	-1.9	-0.6	0.3	0.1	3.1	1.0
Other Services	187.3	187.2	187.1	187.8	-0.1	0.0	0.0	0.0	0.6	0.3
Government	695.1	695.8	693.8	694.0	0.7	0.1	-2.0	-0.3	0.2	0.0
Federal Government	156.8	157.4	158.9	157.1	0.6	0.4	1.4	0.9	-1.8	-1.1
State & Local Government	538.3	538.4	535.0	537.0	0.1	0.0	-3.5	-0.6	2.0	0.4

*Forecast Period begins with third quarter of CY 2008.

NOTE: Detail may not add to totals due to rounding.

Table 2 - Virginia Labor Force and Employment Projections - WIA Program Year
(Numbers in Thousands)

Subject				PY 2008 to PY 2009		PY 2009 to PY 2010	
	PY 2008*	PY 2009	PY 2010	Change	% Change	Change	% Change
Labor Force Data (Place of Residence)							
Labor Force	4160.9	4191.5	4228.3	30.5	0.7	36.9	0.9
Resident Employment	3966.1	3976.2	4015.6	10.1	0.3	39.5	1.0
Unemployed	194.8	215.3	212.7	20.5	10.5	-2.6	-1.2
Unemployment Rate (%)	4.7	5.1	5.0	0.4	-	-0.1	-
Establishment Data (Place of Work)							
Total Nonag. Wage & Salary	3766.0	3759.2	3808.3	-6.8	-0.2	49.2	1.3
Total Manufacturing	269.2	257.5	257.8	-11.6	-4.3	0.2	0.1
Durables	157.6	149.5	150.6	-8.1	-5.1	1.1	0.7
Transportation Equipment	35.2	34.0	34.8	-1.2	-3.5	0.8	2.4
Furniture and Related Products	17.3	16.5	16.6	-0.8	-4.7	0.1	0.6
Other Durables	105.1	99.1	99.3	-6.1	-5.8	0.2	0.2
Nondurables	111.6	108.0	107.1	-3.5	-3.2	-0.9	-0.8
Textile Mills	7.8	7.1	6.7	-0.7	-9.4	-0.3	-4.9
Other Nondurables	103.8	101.0	100.4	-2.8	-2.7	-0.6	-0.5
Total Nonmanufacturing	3496.8	3501.6	3550.6	4.8	0.1	48.9	1.4
Natural Resources & Mining	10.4	10.3	10.8	-0.1	-0.9	0.4	4.2
Construction	229.4	219.3	219.9	-10.1	-4.4	0.5	0.2
Trade	543.2	548.3	553.8	5.0	0.9	5.5	1.0
Wholesale Trade	120.8	120.3	121.7	-0.5	-0.4	1.4	1.1
Retail Trade	422.4	428.0	432.1	5.5	1.3	4.2	1.0
Transportation, Warehousing, and Utilities	119.3	119.1	120.2	-0.2	-0.2	1.1	0.9
Information	88.7	85.0	84.2	-3.6	-4.1	-0.8	-0.9
Finance, Insurance, and Real Estate	191.0	191.8	195.3	0.8	0.4	3.4	1.8
Professional and Business Services	648.3	651.2	678.7	3.0	0.5	27.4	4.2
Prof., Scientific, and Technical Services	365.6	368.3	378.5	2.7	0.7	10.1	2.8
Mgmt. of Companies and Enterprises	77.7	78.2	78.9	0.4	0.5	0.8	1.0
Adm. and Support and Waste Mgmt.	204.9	204.7	221.3	-0.2	-0.1	16.5	8.1
Educational and Health Services	436.4	449.4	459.7	13.0	3.0	10.3	2.3
Educational Services	84.2	85.8	87.2	1.6	1.9	1.4	1.6
Health Care and Social Assistance	352.2	363.6	372.5	11.4	3.2	8.9	2.5
Leisure and Hospitality	345.2	345.6	347.6	0.3	0.1	2.0	0.6
Arts, Entertainment, and Recreation	47.0	47.9	48.4	0.8	1.8	0.5	1.1
Accommodation and Food Services	298.2	297.7	299.1	-0.5	-0.2	1.4	0.5
Other Services	187.6	186.9	187.4	-0.7	-0.4	0.5	0.3
Government	697.3	694.6	693.1	-2.6	-0.4	-1.6	-0.2
Federal Government	157.2	158.8	157.4	1.6	1.0	-1.4	-0.9
State & Local Government	540.0	535.9	535.7	-4.2	-0.8	-0.2	0.0

*Forecast Period begins with third quarter of CY 2008.

NOTE: Detail may not add to totals due to rounding.

Table 3 - Virginia Labor Force Projections by Quarters, 2008:1 - 2011:4*
(Numbers in Thousands)

Subject	2008:1	2008:2	2008:3	2008:4	2009:1	2009:2	2009:3	2009:4	2010:1	2010:2	2010:3	2010:4	2011:1	2011:2	2011:3	2011:4
Labor Force Data (Place of Residence)																
Labor Force	4099.5	4122.1	4145.4	4156.1	4166.9	4175.2	4181.4	4187.6	4194.4	4202.4	4211.6	4222.1	4233.7	4245.9	4258.5	4271.1
Resident Employment	3953.7	3965.1	3961.3	3967.0	3967.2	3968.9	3968.8	3971.3	3977.7	3986.8	3998.5	4006.8	4021.0	4036.2	4052.5	4068.7
Unemployed	145.8	157.0	184.0	189.2	199.7	206.3	212.6	216.3	216.7	215.6	213.2	215.3	212.6	209.7	206.0	202.3
Unemployment Rate (%)	3.6	3.8	4.4	4.6	4.8	4.9	5.1	5.2	5.2	5.1	5.1	5.1	5.0	4.9	4.8	4.7
Establishment Data (Place of Work)																
Total Nonag. Wage & Salary	3770.1	3776.9	3782.3	3771.1	3760.3	3750.1	3746.7	3752.4	3763.0	3774.6	3786.8	3799.2	3816.6	3830.8	3850.2	3868.5
Total Manufacturing	273.3	275.6	274.0	271.6	267.5	263.6	260.1	257.8	256.4	256.0	256.0	257.1	258.3	259.6	260.9	262.1
Durables	158.6	161.1	160.7	159.3	156.5	154.0	151.3	149.6	148.6	148.5	148.9	150.0	151.2	152.5	153.8	155.0
Transportation Equipment	35.4	35.6	36.2	35.6	34.7	34.3	34.0	33.9	33.9	34.1	34.2	34.6	35.0	35.3	35.7	36.0
Furniture and Related Products	17.4	17.7	17.7	17.4	17.1	16.9	16.7	16.5	16.4	16.4	16.4	16.5	16.6	16.8	16.9	17.1
Other Durables	105.8	107.8	106.9	106.2	104.7	102.7	100.5	99.2	98.3	98.1	98.2	98.9	99.6	100.4	101.2	102.0
Nondurables	114.6	114.4	113.3	112.3	111.0	109.7	108.8	108.2	107.7	107.4	107.1	107.2	107.2	107.1	107.1	107.2
Textile Mills	8.4	8.3	8.2	7.9	7.6	7.4	7.2	7.1	7.0	6.9	6.8	6.8	6.7	6.6	6.5	6.5
Other Nondurables	106.2	106.1	105.1	104.4	103.4	102.3	101.6	101.1	100.7	100.5	100.3	100.4	100.5	100.5	100.6	100.7
Total Nonmanufacturing	3496.8	3501.4	3508.3	3499.6	3492.8	3486.5	3486.6	3494.7	3506.6	3518.7	3530.8	3542.0	3558.2	3571.2	3589.3	3606.3
Natural Resources & Mining	10.7	10.7	10.6	10.4	10.4	10.2	10.3	10.2	10.3	10.4	10.6	10.7	10.8	10.9	10.9	11.0
Construction	237.6	236.3	234.5	231.8	228.4	222.8	219.7	219.0	219.2	219.4	219.0	218.6	219.9	222.0	224.2	226.5
Trade	546.2	545.9	547.1	543.6	540.4	541.8	544.1	547.4	549.7	552.0	553.7	554.4	554.4	552.8	552.9	554.2
Wholesale Trade	121.5	121.6	121.4	121.2	120.4	120.2	120.1	120.2	120.3	120.7	121.2	121.5	121.8	122.2	122.6	122.9
Retail Trade	424.7	424.3	425.7	422.4	420.0	421.6	423.9	427.2	429.4	431.3	432.5	432.9	432.6	430.5	430.3	431.4
Transportation, Warehousing, and Utilities	120.9	119.8	119.8	119.6	119.1	118.8	118.8	119.0	119.1	119.4	119.8	120.1	120.3	120.6	120.9	121.2
Information	89.7	90.4	90.3	89.3	88.7	86.4	85.8	85.1	84.7	84.5	83.8	83.9	84.6	84.7	84.8	85.2
Finance, Insurance, and Real Estate	192.3	193.1	191.8	190.9	190.7	190.7	191.3	191.8	191.9	192.3	193.5	194.8	195.8	197.0	198.2	199.6
Professional and Business Services	648.5	651.1	653.0	649.9	646.6	643.6	644.7	648.1	652.7	659.4	667.0	674.4	682.2	691.1	699.4	706.9
Prof., Scientific, and Technical Services	359.3	363.4	365.5	365.8	365.6	365.6	366.5	367.4	368.7	370.7	373.4	376.6	380.1	383.8	387.6	391.4
Mgmt. of Companies and Enterprises	77.3	77.5	77.6	77.7	77.8	77.9	78.0	78.1	78.2	78.3	78.5	78.8	79.0	79.3	79.6	79.9
Adm. and Support and Waste Mgmt.	211.9	210.2	210.0	206.4	203.2	200.2	200.2	202.6	205.8	210.4	215.1	219.0	223.0	228.0	232.2	235.6
Educational and Health Services	422.3	426.0	431.1	433.9	438.0	442.6	445.0	447.6	450.8	454.1	456.7	458.7	460.8	462.7	465.3	467.0
Educational Services	80.0	81.5	83.0	83.6	84.9	85.2	85.4	85.6	85.9	86.2	86.6	87.0	87.4	87.8	88.1	88.4
Health Care and Social Assistance	342.3	344.5	348.1	350.3	353.0	357.4	359.6	362.0	364.9	367.8	370.1	371.6	373.4	374.9	377.2	378.6
Leisure and Hospitality	350.0	346.8	345.3	345.2	345.1	345.3	345.4	345.5	345.5	345.9	346.4	346.7	348.2	349.0	350.7	351.5
Arts, Entertainment, and Recreation	48.0	48.0	46.5	46.6	47.5	47.6	47.7	47.8	47.9	48.0	48.2	48.4	48.5	48.6	48.8	48.9
Accommodation and Food Services	302.0	298.9	298.8	298.6	297.7	297.7	297.7	297.6	297.6	297.9	298.2	298.3	299.7	300.3	301.9	302.5
Other Services	186.8	187.0	187.6	187.7	187.9	187.3	186.3	187.2	187.1	186.9	187.5	187.1	188.1	186.9	187.8	188.3
Government	691.8	694.2	697.2	697.4	697.7	696.8	695.1	693.8	695.4	694.3	692.9	692.7	693.1	693.6	694.2	695.1
Federal Government	155.8	157.2	157.2	157.2	157.2	157.3	157.4	157.7	160.3	159.7	158.0	157.4	157.2	157.1	157.0	156.9
State & Local Government	536.0	537.0	540.0	540.2	540.4	539.5	537.7	536.1	535.1	534.5	534.9	535.3	535.9	536.5	537.2	538.1

*Forecast Period begins with third quarter of CY 2008.

NOTE: Detail may not add to totals due to rounding.

	1795.63	8.49	▲	0.48%	44
	1791.97	4.83	▲	0.27%	29
	1795.09	-0.54	▼	0.03%	11
	767.89	0.01	▲	0.00%	17
	778.33	1.34	▲	0.17%	17
	4443.87	7.63	▲	0.23%	12
	2916.60	-4.89	▼	0.16%	7
05%	1112.11	-0.73	▼	0.05%	4
	1787.63	8.49	▲	0.38%	4
	1791.97	4.83	▲	0.27%	4
38%	1295.09	-0.54	▼	0.13%	7
27%	767.89	0.01	▲	0.10%	7
	790.33	1.34	▲	0.17%	7
	443.83	5.63	▲	0.23%	7
	416.60	-6.89	▼	0.06%	7
	412.11	-0.73	▼	0.15%	
10%	795.63	8.49	▲	0.48%	24
17%	795.63	8.49	▲	0.27%	24

Economic Assumptions
Economic Information Services Division
Virginia Employment Commission

P.O. Box 1358
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